FY 2019-23

Santa Clara Valley Water District

Capital Improvement Program

Santa Clara Valley Water District

Fiscal Years 2019-23
Capital Improvement Program

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May 8, 2018

Santa Clara Valley
Water District

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Overview

OVERVIEW

The Santa Clara Valley Water District's (District) Fiscal Year 2019-23 Five-Year Capital Improvement Program (CIP) is a projection of the District's capital funding for planned capital projects from Fiscal Year 2018-19 through Fiscal Year 2022-23. The purpose of the CIP is to document planned District projects to help integrate District work with the larger community by aligning District planning with other local agency planning efforts.

The District's CIP is developed following the guidelines of Government Code (GC) § 65403 which governs the development and annual review of Capital Improvement Programs developed by special districts in the State of California. State law requires that the program be reviewed and updated annually. It also requires circulation of the document to all agencies having land use authority within District boundaries prior to adoption of the program. This document is intended to provide the information necessary to facilitate planning and construction of water related infrastructure to meet the needs of Santa Clara County.

SANTA CLARA VALLEY WATER

Mission

The mission of the District is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.

The CIP is prepared in accordance with the guidelines established by the Government Finance Officer Association (GFOA). Capital projects in this document are defined by both the accounting criteria for capital investment and Public Contract Code definition of public works. They exceed $50,000 in cost, have long-term life spans and are generally nonrecurring. They usually fall within one of the following six categories:

1. Acquisition of land for public purpose;
2. Construction of a significant facility, i.e. a flood protection facility, a water treatment facility, or a building;
3. Addition to or expansion of an existing facility;
4. Nonrecurring rehabilitation or major repair to all or part of a facility provided the total cost is more than $50,000;
5. Specific planning, engineering study, or design work related to an individual project which falls within the above categories;
6. Significant one-time investment in tangible goods of any nature, the benefit of which will accrue over several years. Examples include items such as large initial investments or improvements in technology or the purchase of a new telephone system.

The CIP includes several Small Capital Improvement Projects in the various cost centers. These projects will be ongoing and will be used to fund multiple small projects to undertake repairs, replacements, and minor modifications to existing water utility, watershed or campus facilities. Small Capital Improvements generally meet the following criteria:

1. Project cost is less than $1.5 million;
2. Project can be completed within 2 fiscal years;
3. Rights-of-Way acquisition is not required.

The proposed funding for the Water Supply Small Capital Improvement projects is anticipated to vary each year based on the work identified in the Water Utility Asset Management Plan. The Almaden Campus Small Capital Improvements project is funded at a flat rate each year. Unspent funds in these projects will not carry forward from previous years.

There are some miscellaneous capital expenditures incurred by the District that are not captured in the CIP. These capital expenditures include certain components of water purchases, indirect costs to manage and train staff that are fully engaged in capital work, and routine replacement of vehicles and large equipment.

ALIGNMENT WITH ENDS POLICIES

The District plans, manages and carries out capital improvements to comply with the Ends Policies and Executive Limitations established by its Board of Directors. Under the District's Policy Governance Model, Ends Policies describe the outcomes or results to be achieved by District staff. Balancing the Ends Policies are the Executive Limitations, which set limits on staff activities in fulfilling the Ends.

Program plans or master plans are developed to achieve the results established by the Ends Policies and to further define the goals and objectives of each Ends Policy. The Board either formally approves the plans or provides direction to staff, confirming the goals and objectives. These plans then become the basis for staff to propose and develop individual capital projects. Project ideas that are proposed by Operation staff must be vetted via a feasibility study and then validated to prepare a business case for proceeding with a capital investment. Some high profile feasibility studies are included in the CIP. Alignment of the CIP with program or master plans provides a direct link to Ends Policies and ensures the District's long-term capital investments are planned and executed according to the Board's priorities. Three Ends Policies directly drive program or master plans and the types of capital improvements described in the CIP:

- Ends Policy E-2 "There is a reliable, clean water supply for current and future generations."
- Ends Policy E-3 "There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations."
  - E-3.1 "Provide natural flood protection for residents, businesses, and visitors"
  - E-3.2 "Reduce potential for flood damages"
- Ends Policy E-4 "There is water resources stewardship to protect and enhance watersheds and natural resources and to improve the quality of life in Santa Clara County."

(See flowchart "CIP Process Alignment with Ends Policies" on page I-5)

CIP PLANNING PROCESS

The District conducts an annual planning process for its Capital Improvement Program. The purpose of the planning process is to ensure the capital projects included in the CIP:

- Meet the Board's priorities and contribute to the objectives of the District's various programs;
- Have identified funding for the duration of the projects;
- Are coordinated with the local jurisdiction's General Plans.

The CIP planning process is carried out in accordance with the following Executive Limitations:

- Executive Limitation EL-4.3.1., "A BAO shall produce an annual Rolling Five-Year Capital Improvement Plan with the first year serving as the adopted capital budget and the remaining years in place as a projected capital funding plan."
- Executive Limitation EL-4.4.1., "A BAO shall demonstrate to the Board the planned expenditures for the identified and selected capital projects in the Rolling Five-Year Capital Improvement Plan are alligned with the Board's capital priorities."

The annual CIP process is the responsibility of the CIP Group comprised of division managers, with the responsibility to initiate or implement capital projects. The detailed process is a documented ISO procedure. It includes the following key steps:

- Management review and approval, to ensure staff proposed projects are aligned with Board policies and approved program plans;
- Validation of projects to ensure there is a business case for doing the project and that a capital investment is the best solution;
- Prioritization of all projects, including continuing and newly proposed projects, to ensure the projects in the CIP reflect Board priorities;
- Financial analysis, to determine the capacity of the District's capital funding sources to fund the proposed capital projects;

- Outreach to local jurisdictions with land use authority, within Santa Clara County, to coordinate the District's Capital Improvement Program with their General Plans;
- Board review and direction at appropriate steps, to ensure the CIP reflects Board policies and priorities;
- Board adoption of the CIP plan.

The annual CIP planning process starts with collecting information on proposed new capital projects in July, followed by preliminary scoping, priority and financial analyses to produce a Draft CIP in February. The Draft CIP serves as a multi-year plan, and together with other long-term planning efforts of the District, is the basis for the budget for the following fiscal year. This Draft CIP plan is also reviewed by local jurisdictions for consistency with their General Plans. While the CIP is being reviewed by the cities and County the budget is being reviewed and finalized. The Board concludes the outreach on the CIP with a public hearing. The first year of the CIP is reconciled with the budget and the two documents are presented to the board for formal adoption in May.

Board Direction and CIP Outreach

The Board has many opportunities each year to provide direction on projects contained in the Capital Improvement Program. The CIP is developed in parallel with the budget and the water rates. It is presented to the Board on three separate occasions for review and input. Early in the process the project list is presented to the board so they can provide direction to staff, ensuring that the document is developed in accordance with Board priorities. The direction received is used to develop the Draft CIP which is reviewed by the Board before staff is authorized to release the document for public review. The CIP is adopted by the Board in May following a public hearing.

The CIP Board Committee meets throughout the year to review and discuss information related to the development and implementation of the CIP and provide input to staff. The Committee provides direction on issues ranging from projects they want to implement, to resource utilization and funding sources or distribution. The Committee's recommendations are incorporated into the CIP document or implemented by staff.

On January 9, 2018 the FY 2019-23 Preliminary CIP project list, and prioritization criteria were reviewed and endorsed by the Board. The following are highlights of changes from the previous year that have been approved as the basis for the FY 2019-23 CIP:

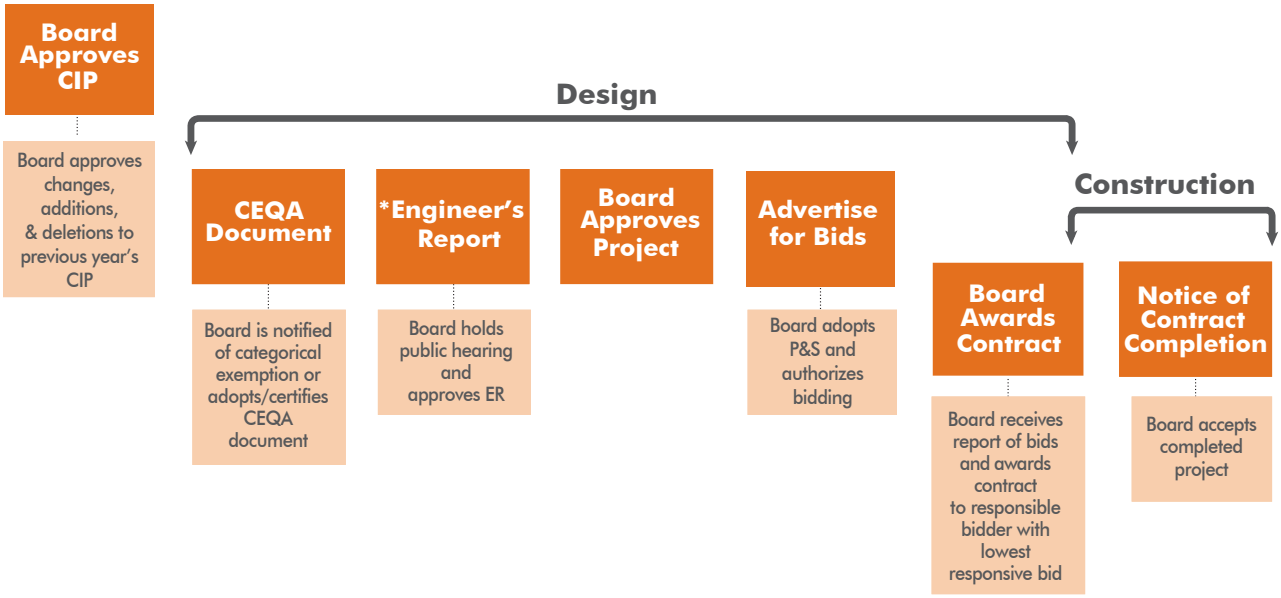
- To fully fund the Water Supply projects in the FY 2019-23 CIP, an increase in the groundwater production charges of up to 9.7% in North County and 7.7% for South County will be required in FY 2019.
- Two new Water Supply projects with a combined value of $10 million were added to the CIP. They are; Treated Water Isolation Valves, and Westside Retailer Interties (FY-18 start).
- Partial planning phase work for Pacheco Reservoir, to position the District to comply with potential Proposition 1 grant funding, was added to the CIP. If the grant is awarded and the Board gives direction to continue with the project, the full cost of the project will be incorporated into the FY 2020 CIP.
- The Board's decision to proceed with a Public-Private Partnership (P3) delivery method for the Expedited Purified Water Program reduces the District's capital investment in the next five years by more than $395 million.
- Continued design evolution on the Anderson Dam Seismic Retrofit project will add about $100 million to the project cost.
- Berryessa Creek, Lower Penitencia Creek to Calaveras Blvd. Phase 3 of the Project was modified to include construction of approximately $50 million (FY18 dollars).
- Watershed Enhancement Design and Construction (new Project) would fund design and construction of fish habitat enhancements at Ogier Ponds and Metcalf Ponds, if feasible projects are identified, and the Board approves proceeding with project work. The funding for design and construction of these projects would be contingent on a successful FAHCE settlement.

Overview

- Stevens Creek Fish Passage Enhancements Project was modified to include an additional $15 million for removal of fish barriers and construction of fish passage enhancements along Stevens Creek.
- Almaden Lake Improvements Project was modified to include approximately $25 million for construction. The Safe Clean Water (SCW) funding earmarked for construction of one creek-lake separation project in SCW Priority D4 ($13M) was allocated to the Almaden Lake Project. The remaining $12 million of necessary funding could be allocated from SCW Priority D6 – Creek Restoration and Stabilization; SCW Priority B1 – Impaired Water Bodies Improvement; or other sources.
- A public hearing on reprogramming approximately $50 million from the Upper Penitencia Creek, Coyote Creek to Dorel Drive Project to the Coyote Creek, Montague Expressway to Tully Road Project was held in April 2018. No decision was made and the hearing was continued to May 23, 2018.
- Over $100 million of additional funding was included in the Watersheds Asset Rehabilitation Program over a fifteen year period.

Each project in the CIP goes through a planning phase, design phase and construction phase. The Board may determine to not implement a project based on various considerations such as financial constraints, environmental impacts or community desire during a project's planning or design phases. Approval of a capital project by the Board occurs at the end of the design phase when the Board approves the plans and specifications to solicit bids for construction of the project.

OPPORTUNITIES FOR BOARD DIRECTION ON CAPITAL PROJECTS



** Board approval of the Engineer's Report is required only on projects with zone funding.*

CIP PROCESS ALIGNMENT WITH ENDS POLICIES

Ends Policy E-2
There is a reliable, clean water supply for current and future generations.

→ **Program Plans or Master Plans**
- **1990** SCVWD Action Plan for reducing disinfection by-product (Board approved)
- Integrated Water Resource Plan (Board Work Studies)
- **1999** Producer-Wholesaler Agreement for Supply of Recycled Water between SCRWA and the District (Board approved)
- **2004** Santa Clara Valley Water District Asset Management Program Implementation Plan
- **2005** Urban Water Management Plan (Board approved)
- **2005** Dam Safety Plan
- **2005** Water Infrastructure Reliability Plan
- **2006** South County Water Recycling MasterPlan (Board approved)
- **2012** Safe, Clean Water Program (Board/Voter approved)
- **2012** Water Supply Infrastructure Master Plan (Board approved)
- **2013** Recycled Water Master Plan (City of Sunnyvale)
- **2014** South Bay Water Recycling Strategic Master Plan

→ **FY 2019-2023 CIP**
- **27 - Water Supply Capital Projects**

Ends Policy E-3.1 & E-3.2
Provide natural flood protection for residents, businesses, and visitors. Reduce potential for flood damages.

→ **Program Plans or Master Plans**
- **1982, 1986, 1990** Benefit Assessment Program (Board approved)
- **2000** Clean, Safe Creek Program (Board/Voter approved)
- **2001** Stream Maintenance Program (Board approved) Annual Watershed Facility Inspection Program (for all watersheds)
- Feasibility Cost Sharing Agreements with the US Army Corps of Engineers
- **2012** Safe, Clean Water Program (Board/Voter approved)

→ **FY 2019-2023 CIP**
- **17 - Flood Protection Capital Projects**

Ends Policy E-4
There is water resources stewardship to protect and enhance watersheds and natural resources and to improve the quality of life in Santa Clara County.

→ **Program Plans or Master Plans**
- CEQA commitments
- Regulatory permitting commitments
- Enhancement Program per Clean Safe Creeks Program (Board/Voter approved)
- Enhancement opportunities determined appropriate by the Board
  - Fish and Aquatic Habitat Collaborative Effort
  - Natural Resource Damage Assessment
  - Other
- **2012** Safe, Clean Water Program (Board/Voter approved)

→ **FY 2019-2023 CIP**
- **9 - Water Resources Stewardship Projects**

Strategic Support

→ **Program Plans or Master Plans**
- **1990** Facilities Master Plan - Site Analysis Report (Board approved)
- **2005** Needs Assessment and Plan Feasibility Study
- **2012** Campus Master Plan (Board approved)

→ **FY 2019-2023 CIP**
- **2 - Buildings and Grounds Capital Projects**

Strategic Support

→ **Program Plans or Master Plans**
- **2001** Information System Master Plan
- **2003** Enterprise-wide Master Communication Plan
- **2012** Information Systems Master Plan

→ **FY 2019-2023 CIP**
- **6 - Information Technology Capital Projects**

CIP Prioritization and Financial Analyses

FISCAL YEAR 2019-23 CIP SUMMARY

The recommended CIP for FY 2019-23 includes 61 priority projects to implement the goals and objectives of the District's program plans and master plans. These projects are grouped into five types of improvements:

- *Water Supply Capital Improvements*
  27 projects contributing to Ends Policy E-2
- *Flood Protection Capital Improvements*
  17 projects contributing to Ends Policy E-3
- *Water Resources Stewardship Capital Improvements*
  9 projects contributing to Ends Policy E-4
- *Buildings and Grounds Capital Improvements*
  2 projects supporting District efforts to achieve the Ends Policies
- *Information Technology Capital Improvements*
  6 projects supporting District efforts to achieve the Ends Policies

Each of the 61 projects in the CIP has an identified funding source based on the type of improvement or function of the project.

The principal sources of revenue for the District are property taxes, a special parcel tax and water production charges for use of groundwater, treated water, and surface water. These revenues are organized into eight funds. Seven of the eight funds have a specific purpose and only finance the operational and capital expenditures related to that purpose. In 2008 the Board decided to combine the individual watershed funds into a county-wide watershed and stream stewardship fund to send the message that the watershed activities are managed for the benefit of the county. This also streamlines most tracking and accounting activities for staff. The District continues to receive a small amount of revenue from benefit assessments that were approved by voters in the 80s and 90s. These funds are dedicated to specific watersheds and the accounting practices to ensure that they are spent and accounted for appropriately have been kept in place. As shown in the chart below, five of the eight funds are used to finance the five types of capital improvements in the CIP.

In November 2012 the voters overwhelmingly approved the Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water). This program replaced the Clean, Safe Creeks Program that would sunset in 2016. Safe, Clean Water has an expanded focus that includes funding for important Water Utility projects as well as additional funding for Flood Protection and Water Resources Stewardship projects. The Safe, Clean Water program will provide over $750 million of special parcel tax revenue for operations and capital projects.

The District aggressively pursues external funding to supplement its principal revenue when practical. For a complete listing of grants and partnerships see Appendix C. A number of District projects are receiving substantial State funding through grants from the Department of Water Resources (DWR) either directly or through local partner agencies:

- $25 million for Lower Silver Creek and Cunningham Flood Detention from DWR;
- $8 million for San Francisquito Creek through the Joint Powers Authority;
- $30 million Upper Berryessa, Lower Berryessa, and Lower Penitencia from DWR

DISTRICT PRIORITIES	District Funds				
Type of Improvement	Water Utility Enterprise Fund	Watershed Stream Stewardship Fund	General Fund	Safe, Clean Water Fund	Information Technology Fund
Water Supply	●		●	●	
Flood Protection		●		●	
Water Resources Stewardship	●	●		●	
Buildings and Grounds			●		
Information Technology	●				●

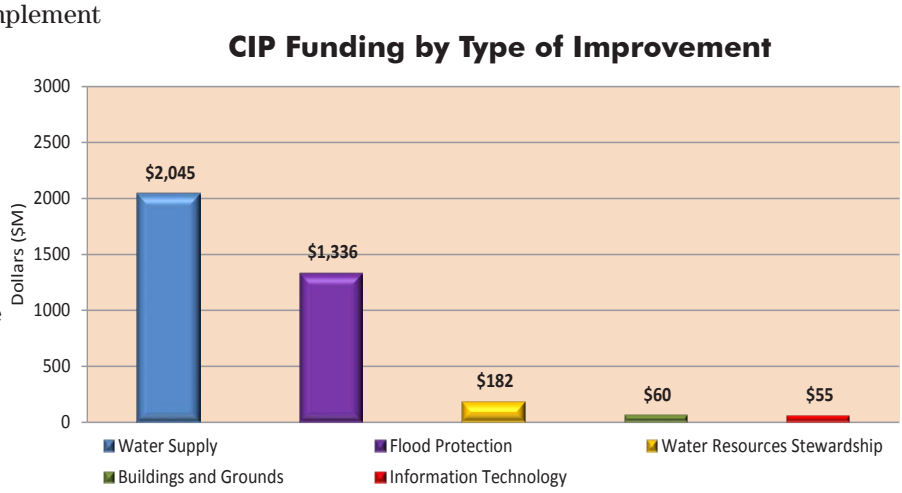
This chart identifies which types of improvement are associated with each of the District's five capital funds.

Overview

The estimated total funding required to implement the 61 projects defined in the CIP is $4.15 billion. The District has been and continues to be successful in leveraging funding for its capital projects through partnerships with federal, state, and local agencies. Of the $4.15 billion total funding, $672 million is expected from the District's various partners, such as the U.S. Army Corps of Engineers (USACE), and $3.479 billion from the District. A list of projects that are funded cooperatively with the District's partners is summarized in Appendix C. Funding from partners for the cooperative capital projects generally come in two ways:

- Funds that are made available by the partners when needed (cost-sharing agreements or in-kind services), or
- Funds that are reimbursed by the partners after the District advances the needed funds.

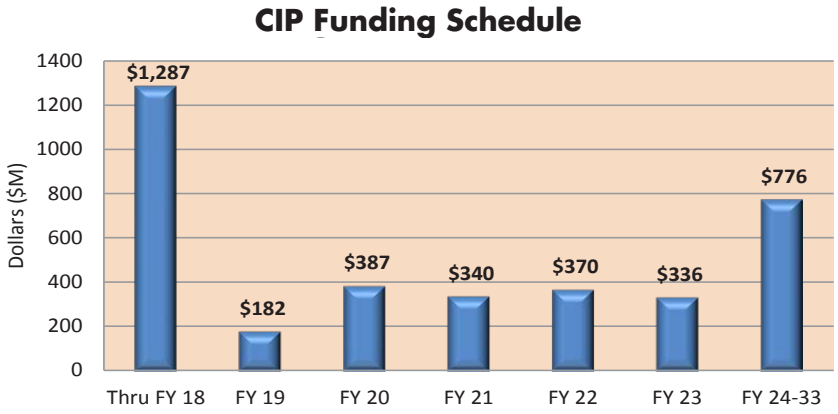
Of the $672 million that is expected from the District's partners, $199 million is advanced by the District and reimbursed later. This $199 million is included in the CIP, and increases the District's total funding requirement from $3.479 billion to $3.678 billion, to ensure that the District has adequate funding to advance the reimbursement.



The chart above shows the distribution by type of improvement, of the $3.678 billion total CIP funding as planned in the FY 2019-23 CIP.

The chart above shows how the $3.678 billion to implement the 61 projects is allocated to each of the five types of improvements.

Of the $3.678 billion in total funding for the 61 projects identified in the CIP, the Board has appropriated $1.287 billion in prior years (through June 30, 2018 the end of Fiscal Year 2017-18). This year's CIP process identified additional funding needs of $2.391 billion to complete the projects in the CIP, with $182 million allocated in Fiscal Year 2018-19 and a total of $2.209 billion proposed for future years. The table shown on page I-8 breaks down the fiscal year total by the five types of improvement and by applicable funding sources.



The chart above shows how the $3.678 billion is distributed by fiscal year.

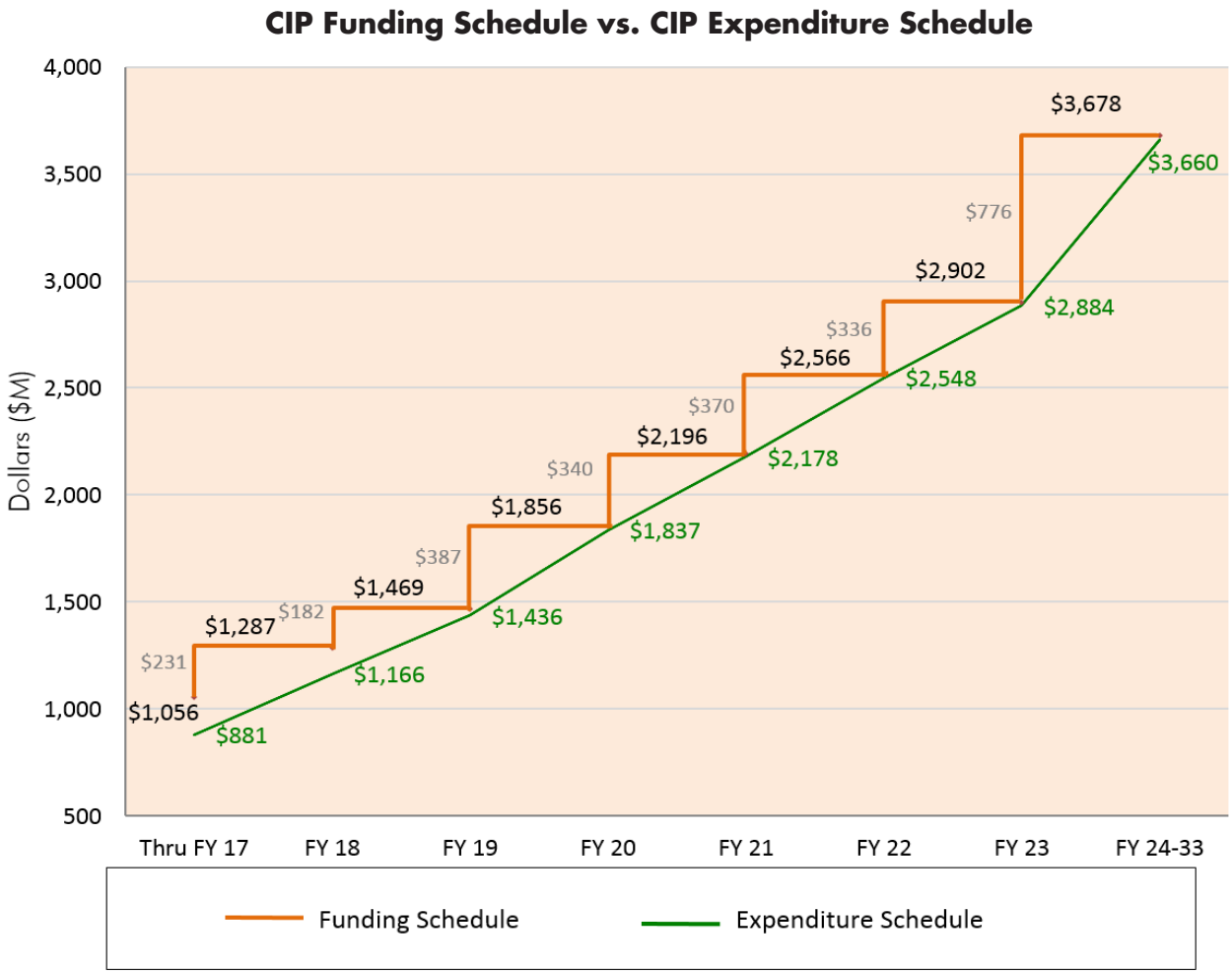
CIP Funding Schedule by Type of Improvement and Funding Sources ($K)

	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
WATER SUPPLY										
Water Utility Enterprise Fund	294,479	137,968	21,135	94,255	264,310	225,277	276,734	264,351	315,618	1,872,992
General Fund	-	2,250	-	12,809	-	-	-	-	-	15,059
Safe, Clean Water and Natural Flood Protection Fund	-	-	-	1,090	673	14,565	4,379	14,691	121,299	156,697
Water Supply Total	294,479	140,218	21,135	108,154	264,983	239,842	281,113	279,042	436,917	2,044,748
FLOOD PROTECTION										
Watershed Stream Stewardship Fund	302,469	23,979	22,393	32,363	41,990	29,138	15,318	11,358	183,424	640,039
Safe, Clean Water and Natural Flood Protection Fund	416,221	51,328	66,383	30,356	57,377	41,925	39,649	22,721	36,862	696,439
Flood Protection Total	718,690	75,307	88,776	62,719	99,367	71,063	54,967	34,079	220,286	1,336,478
WATER RESOURCES STEWARDSHIP										
Water Utility Enterprise Fund	765	-	-	-	-	4,006	6,713	3,738	39,237	54,458
Watershed Stream Stewardship Fund	20,632	2,431	517	1,110	358	534	6,844	6,744	21,350	60,003
Safe, Clean Water and Natural Flood Protection Fund	8,853	2,197	2,282	3,164	13,367	17,529	10,709	775	10,555	67,149
Mitigation Total	30,250	4,628	2,799	4,274	13,725	22,068	24,266	11,257	71,142	181,610
BUILDINGS AND GROUNDS										
General Fund	20	2,046	-	2,072	4,327	6,101	9,384	7,366	28,246	59,562
Buildings and Grounds Total	20	2,046	-	2,072	4,327	6,101	9,384	7,366	28,246	59,562
INFORMATION TECHNOLOGY										
Water Utility Enterprise Fund	920	1,301	33	503	192	-	101	1,588	8,180	12,785
General Fund	1,199	-	-	-	-	-	-	-	-	1,199
Information Technology Fund	10,727	7,376	7,035	4,175	4,048	941	429	2,358	11,304	41,358
Information Technology Total	12,846	8,677	7,068	4,678	4,240	941	530	3,946	19,484	55,342
TOTAL	1,056,285	230,876	119,778	181,897	386,642	340,015	370,260	335,690	776,075	3,677,740
CUMULATIVE TOTAL	1,056,285	1,287,161		1,469,058	1,855,700	2,195,715	2,565,975	2,901,665	3,677,740	

FY 2017-18 Funds to be reappropriated

Overview

As shown in the table, CIP Funding Schedule by Type of Improvement and Funding Sources (on the previous page): approximately $120 million of the already appropriated $1.287 billion is not spent and is reappropriated to Fiscal Year 2018-19 for continued use in those same projects in amounts consistent with the project expenditure schedule for Fiscal Year 2018-19. The following chart explains the relationship between the CIP funding schedule and expenditure schedule.



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Water Supply

Water Supply Capital Improvements

WATER SUPPLY OVERVIEW

The District manages and operates a complex and integrated water supply infrastructure, including storage, transmission, treatment, and recycled water facilities, to meet the Board's Ends Policy E–2, "There is a reliable, clean water supply for current and future generations."

Storage Facilities

- 10 surface reservoirs
- 393 acres of recharge ponds
- 76 miles of in-stream recharge
- Ground water basins

Transmission Facilities

- 142 miles of pipelines
- 3 pump stations

Treatment Facilities

- 3 treatment plants

Recycled Water Facilities

- Silicon Valley Advanced Water Purification Center
- South County Recycled Water Distribution System

Planning, design and construction of the above facilities took decades of effort. Beginning in the 1930s, reservoirs and recharge ponds were built to halt depletion of the ground water basin and subsidence, followed by pipelines and treatment plants to bring in state and federal water to meet growing water demands in the County.

In the early 1990s, the District embarked on new and challenging capital improvements to upgrade its three drinking water treatment plants in order to meet new Environmental Protection Agency rules for improved water quality required by 1996 amendments to the Safe Drinking Water Act. Fifteen years of effort and capital funding brought the upgrades at Penitencia and Santa Teresa Water Treatment Plants to completion. Delivery of ozonated water produced at these two treatment plants began in 2006.

The Rinconada Water Treatment Plant (RWTP) was built in the late 1960s and is reaching the end of its useful life. A number of projects to upgrade and improve operations have been completed. The RWTP Reliability Improvement Project will add raw water ozonation, construct new flocculation and plate settler clarification, and dual media filtration facilities. It will also increase plant capacity from 80 to 100 million gallons per day. Construction of this Project began in the summer 2015 and will continue for approximately five years. It will be constructed in a phased approach that will allow the plant to continue operations throughout the construction process.

With a significant portion of the Water Supply infrastructure approaching fifty to sixty years of age, maintaining and upgrading the existing infrastructure to ensure each facility functions as intended for its useful life became the focus of the Water Supply Capital Improvement Program in recent years, as shown in the CIP.

The District owns and operates ten dams. While these dams provide water supply, flood management, recreation, and environmental flow benefits, there are consequences and costs for dam ownership. Knowledge of seismic stability design and construction was very rudimentary during the design and construction of District dams in the 1930s and 50s. Both liquefaction of dam embankments and foundations and embankment stability is critical for seismic stability. Several of the District reservoirs have operating restrictions imposed by the Department of Safety of Dams (DSOD) while an engineering analysis of how the District's dams would perform under a major seismic event is completed and appropriate corrective actions are implemented.

On November 26, 2010, the Board was informed that Anderson Dam will require a seismic retrofit and the operating restriction was increased to 45 feet below the crest of the dam. Since this briefing, the consultant has determind that a magnitude 7.2 Maximum Credible Earthquake on nearby Calaveras Fault could cause a deformation (slumping) of the dam crest by 25 feet. The Anderson Dam Seismic Retrofit Project ($550 million) was initiated in January 2011.

The District completed a seismic stability evaluation of Almaden, Calero, and Guadalupe Dams in late 2010. Almaden Dam was found to be seismically stable; however both Calero and Guadalupe Dams will require seismic retrofitting to meet DSOD performance criteria. A project was initiated in fiscal year 2013 to address the Calero and Guadalupe Dams retrofit needs. A separate capital project to address outlet and spillway improvements at Almaden Dam is continuing. Seismic stability evaluations were conducted at Lenihan and Stevens Creek Dams. Both were found to be seismically stable.

Major Capital Improvements Identified in CIP

Storage:

- Almaden Dam Improvements
- Anderson Dam Seismic Retrofit
- Calero Dam Seismic Retrofit
- Guadalupe Dam Seismic Retrofit

Transmission:

- 10-Year Pipeline Rehabilitation
- FAHCE Implementation
- Main and Madrone Pipeline Rehabilitation
- Vasona Pumping Plant Upgrade

Treatment:

- PWTP Residuals Management
- RWTP Reliability Improvement

Recycled Water:

- Expedited Purified Water Program
- South County Recycled Water Pipeline

PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to ensure that the new water supply projects proposed to be added to the Fiscal Year 2019-23 CIP reflect the Board's priorities. The priority criteria used to evaluate these projects is included in Appendix A.

A financial analysis of the Water Utility Enterprise Fund, the funding source for water supply capital improvements, was performed to determine the limitations to funding the projects proposed for the Fiscal Year 2019-23 capital program. Results of this year's prioritization process and financial analysis are summarized in Appendix B.

Based on the feedback from the FY 2006-07 CIP and Board direction, a concerted effort was made to develop a multi-year water charge structure that would support the priority work of the water utility business. Staff analyzed both immediate requirements and anticipated future needs to support operations and the continued appropriations for capital investment needed to maintain infrastructure and comply with water quality regulations. Each year staff reviews Board priorities, the financial needs of the water utility enterprise fund, current political and economic factors and updates the multi-year structure. The rate structure for the first year is recommended to the Board for adoption during the annual rate setting process.

While the District has one Water Utility fund, the District has two zones of benefit for the purposes of setting groundwater production charges. The North County Zone is very different from the South County Zone in that the water infrastructure is substantially separate and distinct with an entirely different cost of providing service. For example the north zone overlays the Santa Clara groundwater subbasin and is much more densely populated, requiring a large amount of imported water from outside the county to provide a reliable water supply. To receive, filter

and distribute the imported water, the District chose to build three water treatment plants and a network of raw water and treated water distribution pipelines many decades ago. Conversely, the south zone overlays the Coyote and Llagas groundwater subbasins and is more sparsely populated. South County relies primarily on groundwater to serve roughly 50% agricultural and 50% non-agricultural water needs. A small amount of recycled water is served in the Gilroy area. No treated water is served in South County. A small amount of imported water is used to recharge the groundwater subbasins in the South County. The groundwater subbasins have the ability to absorb the recharge and remain healthy under normal water usage levels, unlike the North County, where several sections of the groundwater basin are very sensitive, which is the main reason for building the treatment plant system long ago.

To fully fund the Water Supply projects in the FY 2019-23 CIP an increase in the groundwater production charges up to 9.7% in Zone W-2 (North County) and 7.7% in Zone W-5 (South County) will be required in FY 2018-19. Preliminary projections indicate the need for annual rate increases of 9.7% on average in subsequent years for North County and 7.7% on average for South County.

The majority of capital projects included in the 5-Year CIP are related to asset management which replaces aging equipment and facilities, infrastructure reliability, which protects the county's baseline water supply or Advanced Purified Water which produces a drought-proof source of water.

The District is currently engaged in several critical studies related to understanding the conditions of various water supply facilities and meeting future water supply needs of the county, including updating the Water Supply Master Plan, which is scheduled to be presented to the Board in summer 2018. These studies will likely identify a number of new capital projects, some of which may require significant capital investment.

Water Supply Capital Improvements

The following table is a project funding schedule for water supply capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

Water Supply Capital Improvements

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
	STORAGE FACILITY										
91854001	Almaden Dam Improvements	12,520	520	-	3,518	829	525	24,963	18,940	393	62,208
91864005	Anderson Dam Seismic Retrofit (C1)	31,586	7,932	-	10,562	152,391	116,197	141,234	89,533	1,458	550,893
91084020s	Calero and Guadalupe Dams Seismic Retrofits	26,808	3,349	3,955	1,911	1,638	9,914	30,332	42,072	55,880	171,904
91084020	Calero and Guadalupe Dams Seismic Retrofits - Planning	9,476	-	499	-	-	-	-	-	-	9,476
91234002	Coyote Pumping Plant ASD Replacement	-	536	436	698	814	3,244	6,416	4,486	791	16,985
91234011	Coyote Warehouse	2,940	2,981	-	1,034	471	143	78	-	-	7,647
91084019	Dam Seismic Stability Evaluation	18,812	-	33	1,060	667	456	5,963	498	1,941	29,397
60954001	Pacheco Reservoir Feasibility Study	-	2,250	-	12,809	-	-	-	-	-	15,059
91214010s	Small Capital Improvements, San Felipe Reach 1-3	n/a	2,457	-	3,702	2,104	2,706	92	-	34,750	45,811
	TRANSMISSION FACILITY										
95084002	10-Year Pipeline Rehabilitation (FY18-FY27)	-	27,170	-	13,866	17,342	20,355	8,260	4,885	33,591	125,469
92C40357	FAHCE Implementation	-	-	-	-	-	4,739	4,379	14,691	121,299	145,108
26764001	IRP2 Additional Line Valves (A3)	-	-	-	1,090	673	9,826	-	-	-	11,589
26564001	Main & Madrone Pipelines Restoration (A1)	2,327	15,084	-	292	-	-	-	-	-	17,703
92144001	Pacheco/Santa Clara Conduit Right of Way Acquisition	1,861	1,034	-	1,514	385	-	-	-	-	4,794
92374005	SCADA Remote Architecture & Communications Upgrade	776	186	362	250	306	313	1,026	1,072	3,662	7,591
92764009	Small Capital Improvements, Raw Water Transmission	n/a	321	-	849	84	-	92	-	3,226	4,572
94764006	Small Capital Improvements, Treated Water Transmission	n/a	-	-	-	152	-	-	-	-	152
94084007	Treated Water Isolation Valves	-	-	-	529	795	6,891	-	-	-	8,215
94084008	Westside Retailer Interties	-	80	-	67	358	1,385	114	-	-	2,004
92264001	Vasona Pumping Plant Upgrade	119	712	480	549	1,163	548	17,541	586	-	21,218
	TREATMENT FACILITY										
93234044	PWTP Residuals Management	-	-	-	-	-	742	1,550	8,279	-	10,571
93294051s	RWTP Residuals Remediation	21,520	22,053	7,808	-	1,222	14,301	2,421	2,350	821	64,688
93294057	RWTP Reliability Improvement	116,221	48,144	176	46,979	47,629	30,116	143	-	-	289,232
93294056	RWTP Treated Water Valves Upgrade	8,424	170	1	9	209	-	-	-	-	8,812
93764004	Small Capital Improvements, Water Treatment	n/a	2,512	-	3,578	7,659	7,682	3,872	315	16,943	42,561
	RECYCLED WATER FACILITY										
91304001s	Expedited Purified Water Program (EPWP)	17,650	2,727	1,147	3,288	6,339	7,593	32,637	64,979	78,253	213,466
91C40389	Long-Term Purified Water Program Elements	-	-	-	-	-	-	-	26,356	83,909	110,265
91094007s	South County Recycled Water Pipeline	32,915	-	6,737	-	21,753	2,166	-	-	-	56,834
	TOTAL	294,479	140,218	21,135	108,154	264,983	239,842	281,113	279,042	436,917	2,044,748

The following table shows funding requirements from each funding source for water supply capital improvements.

FY 2017-18 Funds to be reappropriated

Water Supply Capital Improvements

The following table shows funding requirements from each funding source for water supply capital.

Water Supply - Funding Source ($K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
61	Water Utility Enterprise Fund	294,479	137,968	21,135	94,255	264,310	225,277	276,734	264,351	315,618	1,872,992
11	General Fund	-	2,250	-	12,809	-	-	-	-	-	15,059
26	Safe, Clean Water and Natural Flood Protection Fund	-	-	-	1,090	673	14,565	4,379	14,691	121,299	156,697
	TOTAL	294,479	140,218	21,135	108,154	264,983	239,842	281,113	279,042	436,917	2,044,748

FY 2017-18 Funds to be reappropriated

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Storage Facilities

Storage Facilities

- 10 Surface Reservoirs
- 393 Acres of Recharge Ponds
- 76 Miles of In-stream Recharge
- 7 Capital Projects
- Groundwater Basins

Project	**Almaden Dam Improvements**
Program	Water Supply – Storage
Priority No.	50
Project No.	91854001
District Contact	Katherine Oven koven@valleywater.org

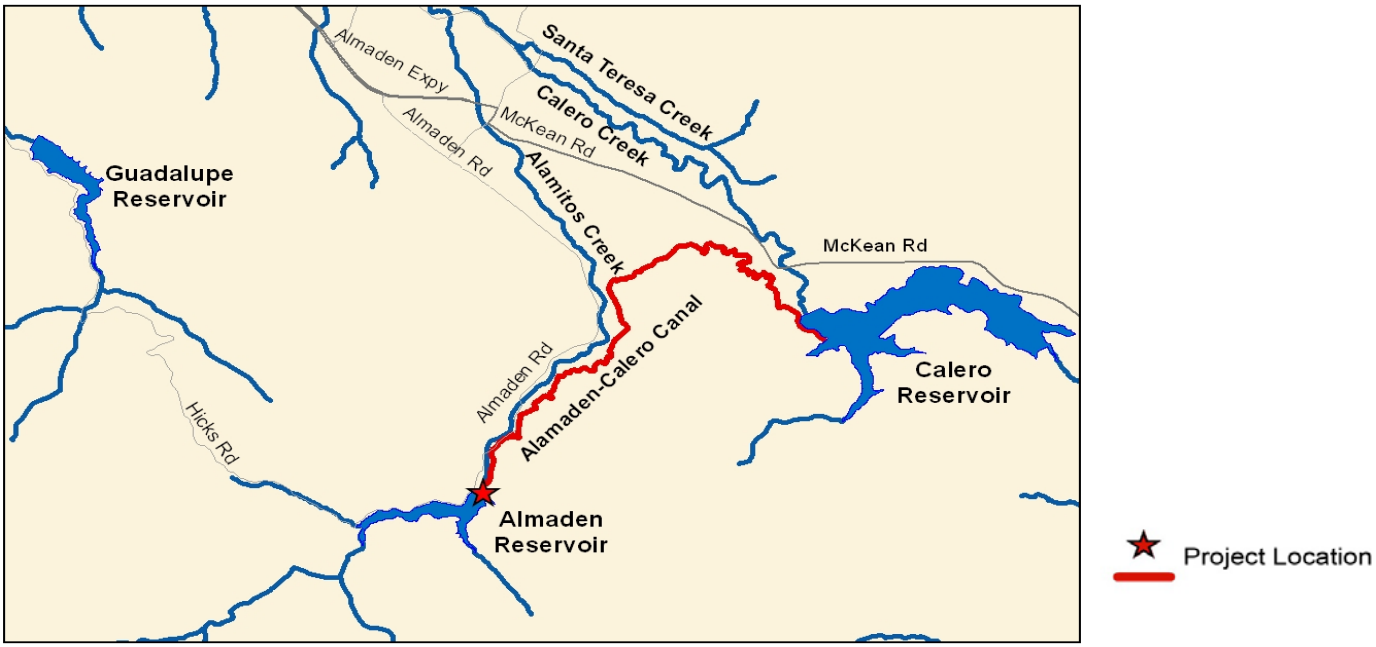
Aerial view of Almaden Dam and spillway, and part of the reservoir

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Almaden Dam outlet works to accomplish the following objectives:

- Modify or construct a new intake structure, capable of releasing 246 cubic feet-per-second (cfs) of water without flushing of sediments through the outlet works.
- Correct existing problems with the outlet energy dissipation structure, piping and valves.
- Restore operational capacity to the Almaden-Calero Canal and stabilize and improve maintenance access.

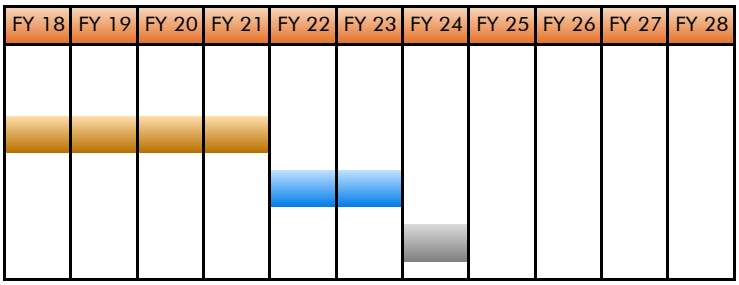
PROJECT LOCATION



SCHEDULE & STATUS

July 1995 to June 2024

Phase	Cost
Plan	5,676
Design	8,423
Construct	38,082
Closeout	302
	56,137



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91854001-Almaden Dam Improvements	10,704	2,090	3,764	759	460	21,710	16,370	302	56,159
with inflation	10,704	2,090	3,764	829	525	24,963	18,940	393	62,208

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91854001-Almaden Dam Improvements	12,520	520	246	3,518	829	525	24,963	18,940	393	62,208

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	62,208
Other Funding Source	0
Total	**62,208**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by approximately $2,000 per year, beginning in FY 2025. Manually flushing the control valves during the winter months to remove silt will no longer be required.

USEFUL LIFE: 50+ Years

Project	**Anderson Dam Seismic Retrofit**
Program	Water Supply – Storage
Priority No.	100
Project No.	91864005
District Contact	Katherine Oven koven@valleywater.org

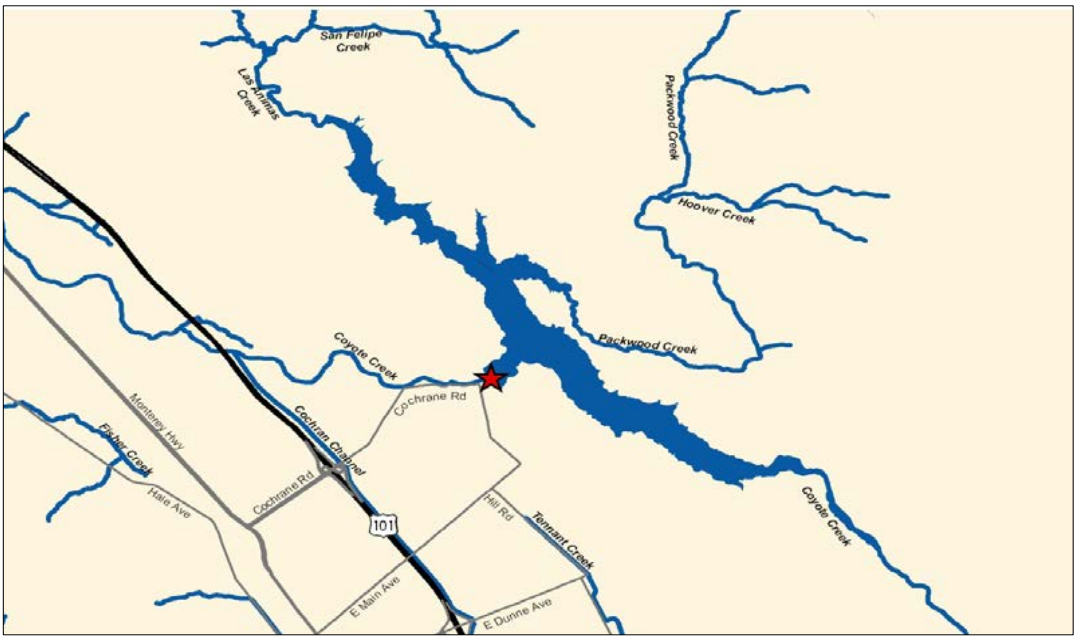
Aerial view of Anderson Dam and spillway, with a portion of the reservoir

PROJECT DESCRIPTION

This project plans, designs, and constructs seismic retrofit or replacement of outlet works at Anderson Dam, pending completion of a field investigation that will determine whether the Coyote Fault is determined to be "active". Seismic stability improvements will accomplish the following objectives:

- Resolve seismic stability deficiencies to ensure public safety.
- Restore lost reservoir storage capacity resulting from the operational restriction issued by Division of Safety of Dams (DSOD).
- Resolve the DSOD/FERC (Federal Energy Regulatory Commission) requirements in a timely manner.

PROJECT LOCATION

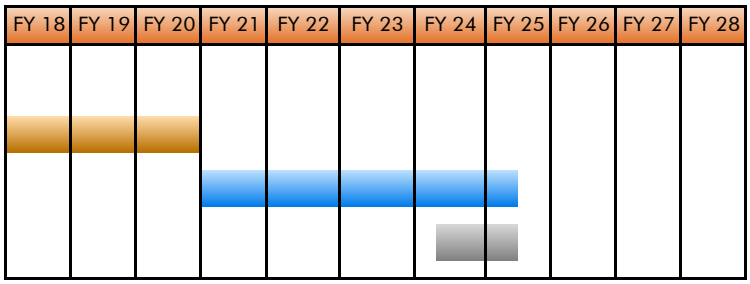


★ Project Location

SCHEDULE & STATUS

January 2011 to December 2024

Phase	Cost
Plan	16,220
Design	35,705
Construct	453,837
Closeout	1,100
	513,098



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91864005-Anderson Dam Seismic Retrofit	31,298	8,220	10,562	141,844	107,664	130,161	82,263	1,100	513,112
with inflation	31,298	8,220	10,562	152,391	116,197	141,234	89,533	1,458	550,894

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91864005-Anderson Dam Seismic Retrofit	31,586	7,932	0	10,562	152,391	116,197	141,234	89,533	1,458	550,894

Adjusted Budget includes adopted budget plus a planned budget adjustment of $19,000.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	484,841
SCVWD Safe Clean Water Fund	66,053
Other Funding Sources	0
Total	550,894

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 50+ Years

Project Calero and Guadalupe Dams Seismic Retrofits
Program Water Supply - Storage
District Contact Katherine Oven koven@valleywater.org
Priority No. 92
Project No. 91084020s

Aerial view of the Calero Dam and reservoir

Areial view of the Guadalupe Dam, spillway, and part of the reservoir

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Calero and Guadalupe Dams to accomplish the following objectives:

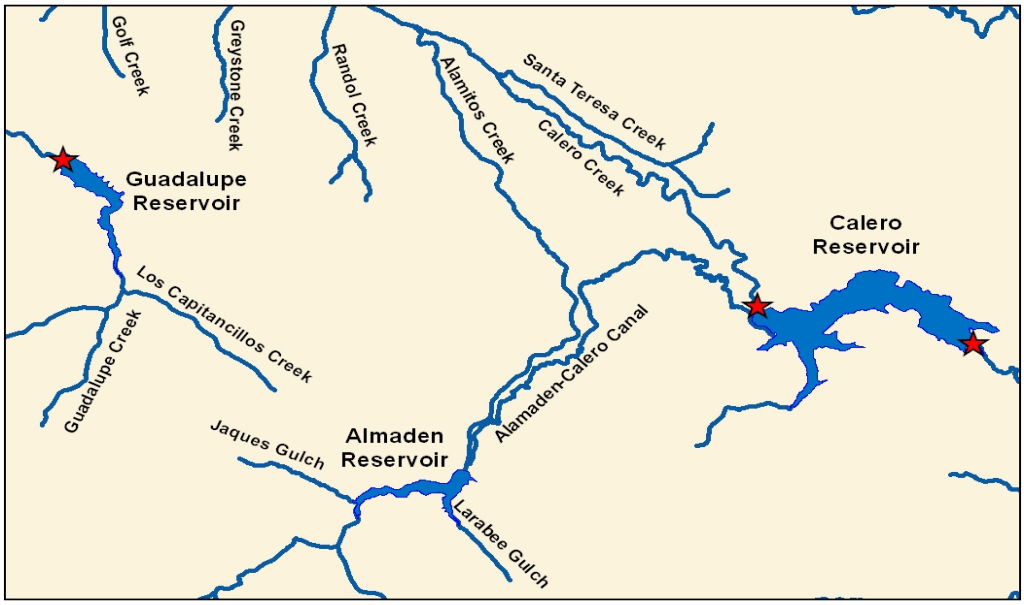
Calero Dam

- Stabilize the embankment to withstand a Maximum Credible Earthquake (MCE).
- Modify or replace the outlet works if determined to be inadequate.
- Modify the spillway or increase the freeboard of the dam for safe passage of the Probable Maximum Flood (PMF).
- Provide modifications that do not preclude potential future expansion of dam and reservoir to provide additional reservoir storage.
- Remove or relocate the Bailey Ranch structures and breach Fellow's Dike.

Guadalupe Dam

- Stabilize the embankment to withstand a MCE.
- Implement improvements as necessary for the dam system to safely pass the PMF.
- Ensure that the outlet works and hydraulic control system meet the Division of Safety of Dams (DSOD) requirements.
- Relocate the intake structure out of the upstream berm in a timely manner.
- Incorporate other measures to address seismic and other dam safety deficiencies that are identified through the Project delivery process.

PROJECT LOCATION

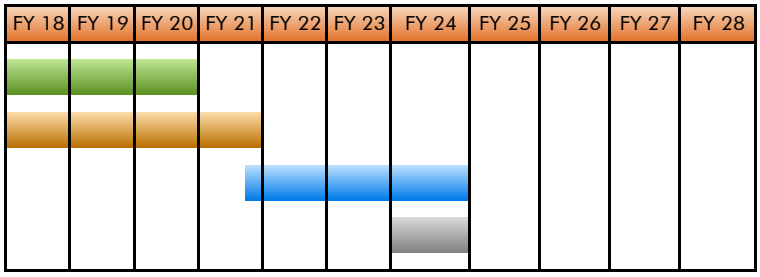


★ Project Location

SCHEDULE & STATUS

July 2012 to June 2024

Phase	Cost
Plan	7,695
Design	17,892
Construct	117,300
Closeout	360
	152,668



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**Future**	
91084020 - Calero and Guadalupe Dams Seismic Retrofits-Planning	7,167	1,810	209	150	0	0	0	0	9,336
with inflation	7,167	1,810	209	164	0	0	0	0	9,350
91874004 - Calero Dam Seismic Retrofit-Design & Construct	7,360	2,320	3,444	500	2,580	6,000	15,750	41,438	79,392
with inflation	7,360	2,320	3,444	546	2,944	7,155	18,750	49,266	91,785
91894002 - Guadalupe Dam Seismic Retrofit-Design & Construct	6,371	1,174	1,923	1,000	6,250	20,700	20,700	5,822	63,940
with inflation	6,371	1,174	1,923	1,092	6,970	23,177	23,322	6,614	70,643
TOTAL	**20,898**	**5,304**	**5,576**	**1,650**	**8,830**	**26,700**	**36,450**	**47,260**	**152,668**
with inflation	**20,898**	**5,304**	**5,576**	**1,802**	**9,914**	**30,332**	**42,072**	**55,880**	**171,778**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	**FY17**	**FY18**		**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**Future**	
91084020 - Calero and Guadalupe Dams Seismic Retrofits-Planning	9,476	0	499	0	0	0	0	0	0	9,476
91874004 - Calero Dam Seismic Retrofit-Design & Construct	9,223	2,188	1,731	1,713	546	2,944	7,155	18,750	49,266	91,785
91894002 - Guadalupe Dam Seismic Retrofit-Design & Construct	8,109	1,161	1,725	198	1,092	6,970	23,177	23,322	6,614	70,643
TOTAL	**26,808**	**3,349**	**3,955**	**1,911**	**1,638**	**9,914**	**30,332**	**42,072**	**55,880**	**171,905**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds the projected cost of one of the projects listed above by approximately $126,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	171,905
Other Funding Source	0
Total	**171,905**

OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

USEFUL LIFE: 50+ Years

Project	**Coyote Pumping Plant ASD Replacement**
Program	Water Supply – Storage
Priority No.	70
Project No.	91234002
District Contact	Christopher Hakes CHakes@valleywater.org

ASD motors at the Coyote Pumping Plant

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Coyote Pumping Plant Adjustable Speed Drives (ASD) to accomplish the following objectives:

- Replace existing outdated and unsupported ASDs with the latest technology.
- Modify/convert existing six wound rotor motors to be compatible with new stator fed ASD.
- Upgrade the HVAC system to support the additional cooling requirements.
- Modify/upgrade Supervisory Control and Data Acquisition (SCADA) control and instrumentation systems, and control strategy to support the new ASDs.
- Replace two main medium voltage circuit breakers and one medium voltage tie circuit breaker (switch) which are at the end of service life.
- Replace motor control equipment line-up (MCE) with new switchgears.
- Installation of a pump motor vibration and a power monitoring system and motor control center.

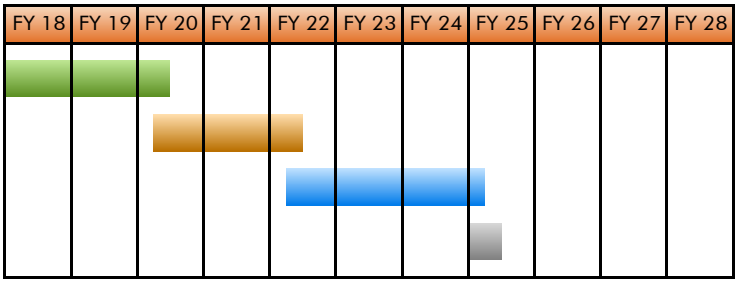
PROJECT LOCATION

★ Project Location

SCHEDULE & STATUS

July 2017 to October 2024

Phase	Cost
Plan	1,279
Design	1,150
Construct	12,305
Closeout	65
	14,799



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91234002-Coyote Pumping Plant ASD Replacement	0	100	1,134	745	2,900	5,550	3,735	635	14,799
with inflation	0	100	1,134	814	3,244	6,416	4,486	791	16,985

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91234002-Coyote Pumping Plant ASD Replacement	0	536	436	698	814	3,244	6,416	4,486	791	16,985

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	13,247
San Benito County Water District	3,738
Total	**16,985**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by approximately $60,000 per year beginning in FY 2024.

USEFUL LIFE: Not Available

Project	**Coyote Warehouse**
Program	Water Supply - Storage
Priority No.	48
Project No.	91234011
District Contact	Katherine Oven koven@valleywater.org

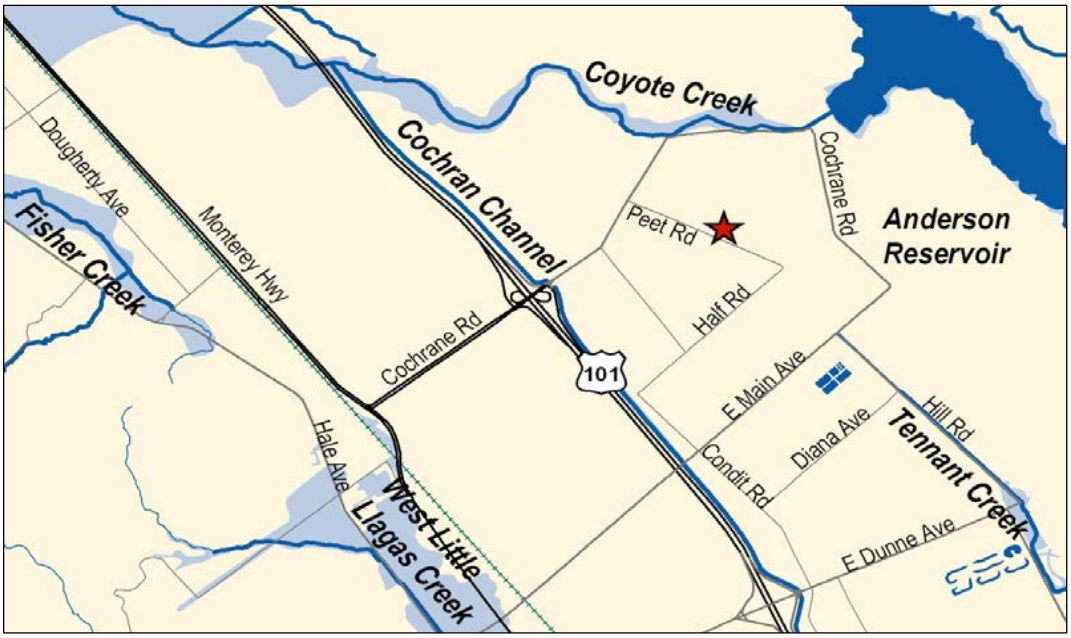
Storage containers used to secure equipment and spare parts

PROJECT DESCRIPTION

This project plans, designs, and constructs the Coyote Warehouse to accomplish the following objectives:

- Provide suitable storage space for pipeline spare parts and appurtenances to protect such materials from weather.
- Improve District's staff efficiency and effectiveness in pipeline maintance work.

PROJECT LOCATION

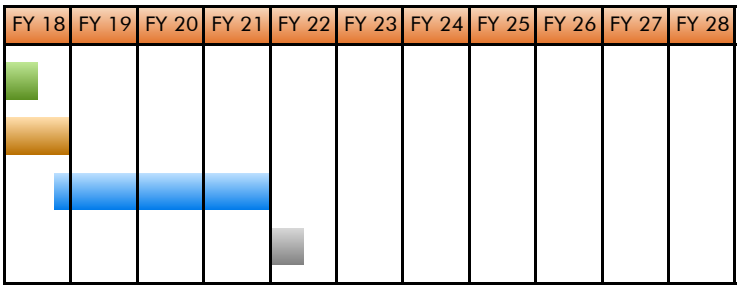


★ Project Location

SCHEDULE & STATUS

July 2014 to December 2021

Phase	Cost
Plan	102
Design	516
Construct	6,621
Closeout	60
	7,576



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91234011-Coyote Warehouse	743	5,178	1,034	431	125	65	0	0	7,576
with inflation	743	5,178	1,034	471	143	78	0	0	7,646

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91234011-Coyote Warehouse	2,940	2,981	0	1,034	471	143	78	0	0	7,646

Adjusted Budget includes adopted budget plus a planned budget adjustment of $77,000.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	7,646
Other Funding Sources	0
Total	7,646

OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined upon completion of the design phase.

USEFUL LIFE: 50 years

Project	**Dam Seismic Stability Evaluations**
Program	Water Supply – Storage
Priority No.	92
Project No.	91084019
District Contact	Katherine Oven KOven@valleywater.org

Field exploration for seismic stability evaluations

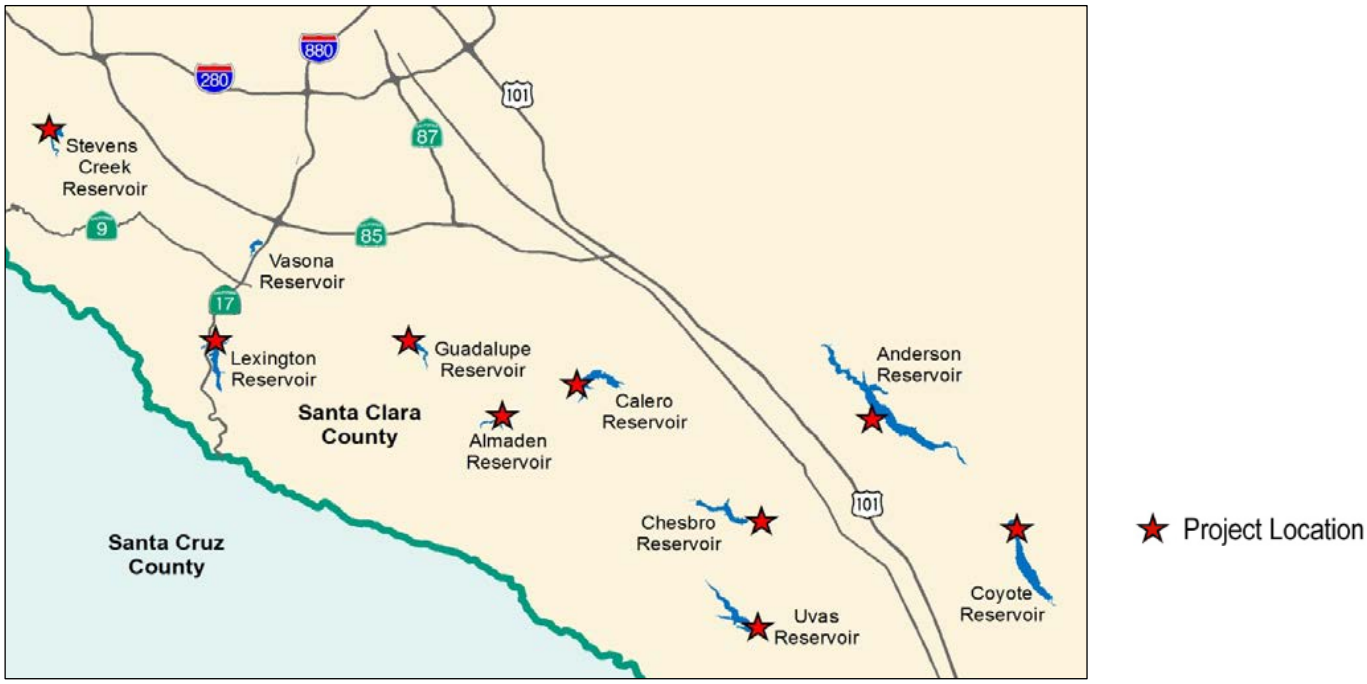
PROJECT DESCRIPTION

This project conducts preliminary planning (seismic stability evaluation) for nine dams (shown on the map) to accomplish the following objectives:

- Address seismic stability issues.
- Provide for public safety.
- Ensure operational availability of reservoirs.
- Address protection of the assets.

Site-specific planning, design, and construction of dam seismic stability improvements will be funded separately. This project funds preliminary planning (seismic stability evaluation, to determine the need for seismic stability improvements) for eight dams. The seismic stability evaluation for Anderson Dam was completed in a separate project. The seismic analysis for Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek Dams has been completed. The analysis for Coyote, Chesbro and Uvas is continuing through 2020.

PROJECT LOCATION



SCHEDULE & STATUS

August 2009 to December 2026

(Planning Phase Only)
Dam Safety Evaluation Report will take 5 years to complete, starting in 2015.

Phase	Cost
Plan	22,481
Design	-
Construct	-
Closeout	-
	27,682

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91084019-Dam Seismic Stability Evaluations	17,459	1,320	1,093	611	400	5,000	400	1,400	27,683
with inflation	17,459	1,320	1,093	667	456	5,963	498	1,941	29,398

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91084019-Dam Seismic Stability Evaluations	18,812	0	33	1,060	667	456	5,963	498	1,941	29,398

Adjusted Budget includes adopted budget plus approved budget adjustments

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	29,398
Other Funding Source	0
Total	29,398

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 50+ Years

Project	**Pacheco Reservoir Feasibility Study**
Program	Water Supply – Storage
Priority No.	52
Project No.	60954001
District Contact	Kurt Arends karends@valleywater.org

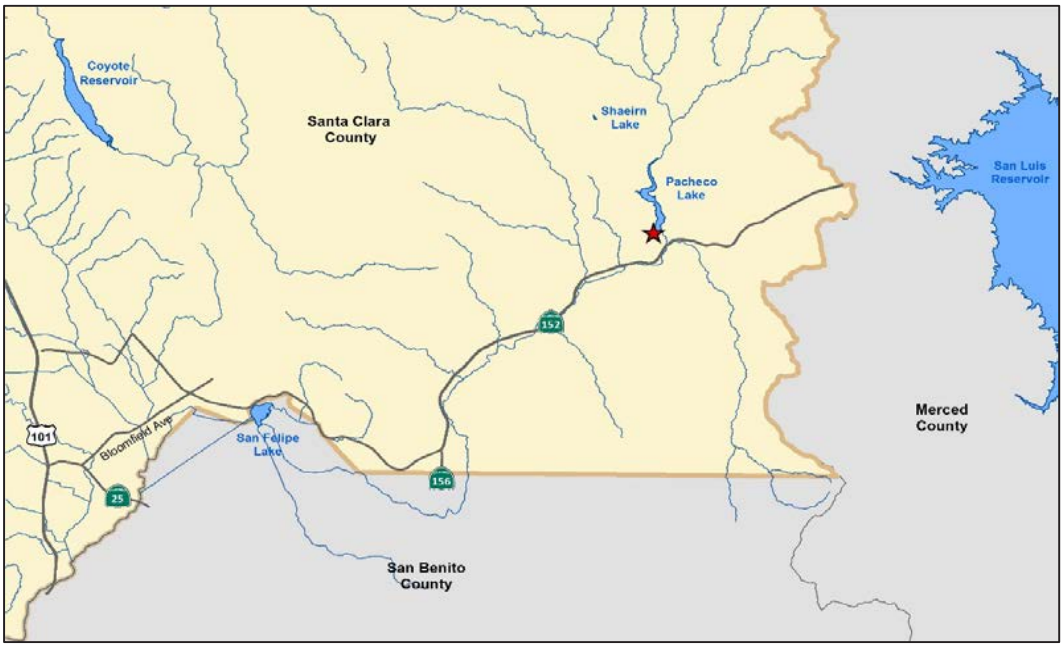
View of Pacheco Reservoir from the dam

PROJECT DESCRIPTION

This project will include expanding the storage capacity of the existing Pacheco Reservoir to 140,000 acre-feet through construction and operation of a new dam, conveyance facilities, and related appurtenant structures. The project objectives:

- Increase suitable habitat in Pacheco Creek for federally threatened steelhead.
- Increase water supply reliability to help meet municipal and industrial (M&I) water demands in Santa Clara County during drought periods and emergencies, or to address shortages due to regulatory and environmental restrictions.
- Develop water supplies for environmental water management that support habitat management and other environmental water needs.
- Avoid supply interruptions when water is needed by increasing the certainty of meeting the requested delivery schedule throughout the year to south-of-Delta contractors dependent on San Luis Reservoir.
- Reduce flood risks along Pacheco Creek and downstream areas.

PROJECT LOCATION



★ Project Location

SCHEDULE & STATUS

October 2017 to June 2019

Initial planning/feasibility study and grant application only.

Phase	Cost
Plan	15,013
Design	46
Construct	-
Closeout	-
	15,059

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60954001-Pacheco Reservoir Feasibility Study	0	2,250	12,809	0	0	0	0	0	15,059
with inflation	0	2,250	12,809	0	0	0	0	0	15,059

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
60954001-Pacheco Reservoir Feasibility Study	0	2,250	0	12,809	0	0	0	0	0	15,059

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	15,059
Other Funding Sources	0
Total	15,059

OPERATING COST IMPACTS

TBD

USEFUL LIFE: TBD

Project	**Small Capital Improvements, San Felipe**
Program	Water Supply – Storage
Priority No.	76
Project No.	91214010s
District Contact	Kurt Arends karends@valleywater.org

Example of bacterial corrosion on a suction wear ring of an impeller

PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project implements a systematic approach to equipment replacement and renewal at facilities contained within San Felipe Division by designing and constructing improvements identified through the District's 10-year asset management program. Infrastructure within this project includes tunnels, large diameter pipelines and valve structures, pumps and associated equipment, as well as a large, above-ground storage tank. The Reach 1 renewal and replacement activities are conducted in coordination and cooperation with San Felipe Division Reach 1 contractors, partner cities, and other agencies. Planned projects for FY 2019 include:

- 91214010 Reach 1: Refurbish or Rebuild the pump, motor windings and bearings for Pump Units 5 & 7.
- 91224010 Reach 2: CFI/CFO Road Access Fix (culvert replacements); Environmental clearance/permitting.
- 91234010 Reach 3: Replace entire section of asphalt at Coyote Pumping Plant (approx. 28,000 sq.ft.)

All active projects have positive NPV saving at feasibility study phase subject to design phase validation.

PROJECT LOCATION

SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost
Plan	n/a
Design	n/a
Construct	n/a
Closeout	n/a
	32,561

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91214010-Small Capital Improvements, San Felipe Reach 1	n/a	2,409	2,902	1,767	1,750	77	0	10,450	19,355
with inflation	n/a	2,409	2,902	1,930	1,997	92	0	17,401	26,730
91224010-Small Capital Improvements, San Felipe Reach 2	n/a	48	595	0	0	0	0	0	643
with inflation	n/a	48	595	0	0	0	0	0	643
91234010-Small Capital Improvements, San Felipe Reach 3	n/a	0	205	159	621	0	0	11,578	12,563
with inflation	n/a	0	205	174	709	0	0	17,351	18,438
TOTAL	**0**	**2,457**	**3,702**	**1,926**	**2,371**	**77**	**0**	**22,028**	**32,561**
with inflation	**0**	**2,457**	**3,702**	**2,103**	**2,706**	**92**	**0**	**34,752**	**45,811**

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91214010-Small Capital Improvements, San Felipe Reach 1	n/a	2,409	0	2,902	1,930	1,997	92	0	17,401	26,730
91224010-Small Capital Improvements, San Felipe Reach 2	n/a	48	0	595	0	0	0	0	0	643
91234010-Small Capital Improvements, San Felipe Reach 3	n/a	0	0	205	174	709	0	0	17,351	18,438
TOTAL	**0**	**2,457**	**0**	**3,702**	**2,103**	**2,706**	**92**	**0**	**34,752**	**45,811**

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	38,603
San Benito County Water District	7,208
Total	**45,811**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: Not Available

Transmission Facilities

Transmission Facilities

- 142 Miles of Pipelines
- 3 Pump Stations
- 11 Capital Projects

Project	**10-Year Pipeline Inspection & Rehabilitation**
Program	Water Supply – Transmission
Priority No.	78
Project No.	95084002
District Contact	Christopher Hakes chakes@valleywater.org

A typical rehabilitated line valve assembly

PROJECT DESCRIPTION

The project develops the District's large diameter Pipeline Management Strategy and a 10-year program for implementation tasks associated with the strategy. This program involves the inspection, planning, design for renewal of the District's large pipelines and tunnels. The project work includes the following objectives:

- Perform dewatering and internal inspections of District's pipelines and tunnels.
- Renew distressed pipe sections as required. Renewal encompasses the actions of repair, rehabilitation, and replacement.
- Perform condition assessment, maintenance, repair, coating and other activities as required.
- Replace line valves, flow meters, pipeline appurtenance assemblies, and piping as required.
- Improve system performance by installing Cathodic Protection Systems, Accoustic Fiber Optical Monitoring of PCCP, and transient pressure monitoring systems.
- Development of a Pipeline Asset Risk Management System that includes GIS, databases, algorithms, models, data acquisition, program documents, and decision support systems.

The first 5 years will include inspection and renewal work along the various pipelines and tunnels as identified below:

- 2019: Cross Valley Pipeline and Calero Pipeline
- 2020: Central Pipeline, Parallel East Pipeline
- 2021: Santa Clara Conduit, Pacheco Tunnel Reach 2, Santa Clara Tunnel
- 2022: West Pipeline, Penitencia Delivery Main, Penitencia Force Main
- 2023: Almaden Valley Pipeline, Santa Teresa Force Main, Stevens Creek Pipeline

PROJECT LOCATION

Project Location

SCHEDULE & STATUS

July 2017 to June 2027

Phase	Cost
Plan	3,680
Design	12,490
Construct	95,140
Closeout	340
	111,650

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
95084002-10-Year Pipeline Inspection & Rehabilitation	0	27,170	13,866	16,104	18,170	7,040	4,000	25,300	111,650
with inflation	0	27,170	13,866	17,342	20,355	8,260	4,885	33,591	125,470

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
95084002-10-Year Pipeline Inspection & Rehabilitation	0	27,170	0	13,866	17,342	20,355	8,260	4,885	33,591	125,470

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	125,470
Other Funding Sources	0
Total	**125,470**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 50 Years

Project	**FAHCE Implementation**
Program	Water Supply - Transmission
Priority No.	73
Project No.	92C40357
District Contact	Vincent Gin VGin@valleywater.org

Fish habitats such as the one shown here will be developed for Habitat Conservation.

PROJECT DESCRIPTION

In 1996, Guadalupe-Coyote Resource Conservation District (GCRCD) filed a water rights complaint with the State Water Resources Control Board (SWRCB) alleging the District's exercise of its appropriative water rights in Coyote Creek, Guadalupe River and Stevens Creek and their tributaries (Three Creeks) was not providing adequate flows for the protection of fisheries and other aquatic resources. A negotiation process (i.e. Fish and Aquatic Habitat Collaborative Effort [FAHCE]) ensued and resulted in the initialing of the FAHCE Settlement Agreement in 2003 by GCRCD, U.S. Fish and Wildlife, National Marine Fisheries Service, California Department of Fish and Wildlife, and other parties. The FAHCE Settlement Agreement includes a proposed FAHCE program that was reviewed by staff of the State and Federal resource management agencies, and will again receive regulatory review as it undergoes environmental impact review prior to implementation to ensure compliance with all applicable laws. The FAHCE program focuses on habitat improvements for steelhead and chinook salmon and is intended to comprehensively address and resolve all issues in the water rights complaint and any related issues arising under State and Federal laws that concern the impacts of the District's facilities and operation on the beneficial uses of the Three Creeks. Once environmental impact review of the FAHCE program is completed, it will be submitted to the SWRCB and included in the District's Three Creek appropriative water rights. The FAHCE program consists of reservoir reoperations to support salmonid spawning, rearing and migration; fish passage remediation and aquatic habitat restoration measures; and an adaptive management program.

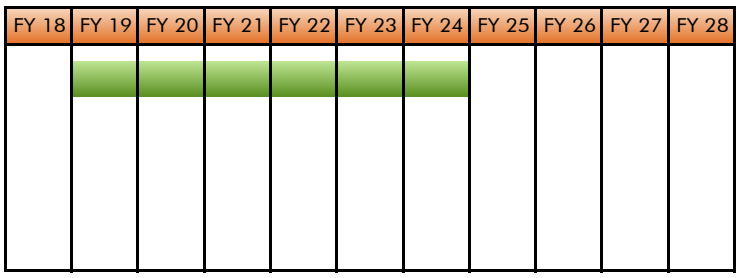
PROJECT LOCATION

Project sites will be located at reservoirs and streams within the Three Creeks Project Area, in the Guadalupe, Coyote and Stevens Creek Watersheds. Project site locations are yet to be determined and no map is provided.

SCHEDULE & STATUS

July 2018 to June 2024

Phase	Cost
Plan	145,108
Design	-
Construct	-
Closeout	-
	145,108



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92C40357-FAHCE Implementation	0	0	0	0	4,739	4,379	14,691	121,299	145,108
with inflation	0	0	0	0	4,739	4,379	14,691	121,299	145,108

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
92C40357-FAHCE Implementation	0	0	0	0	0	4,739	4,379	14,691	121,299	145,108

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	145,108
Other Funding Source	0
Total	145,108

OPERATING COST IMPACTS

Operating cost impacts will vary, depending on the requirements for maintenance of each site. Once the sites have been identified, operating costs will be determined based on the existing conditions and maintenance identified for each site.

USEFUL LIFE: Not Available

Project	**IRP2 Additional Line Valves**
Program	Water Supply – Transmission
Priority No.	63
Project No.	26764001
District Contact	Christopher Hakes chakes@valleywater.org

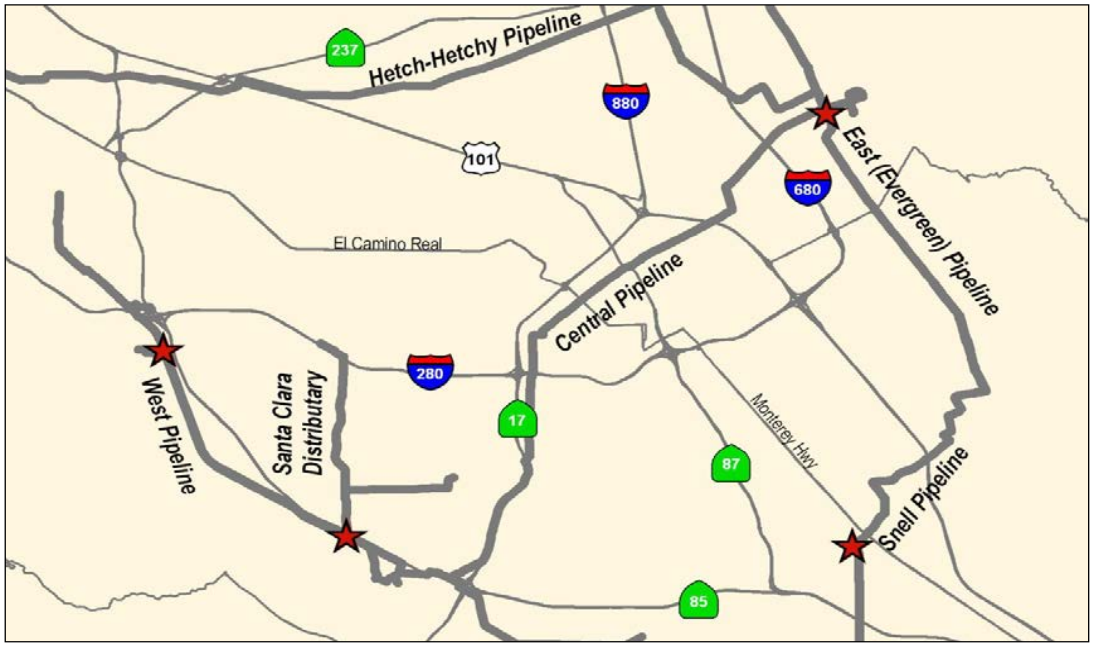
New line valves, actuators, and vaults similar to this will be installed along the East, West, and Snell pipelines

PROJECT DESCRIPTION

This project plans, designs, and constructs four additional line valves in the treated water distribution system, as defined in the Water Infrastructure Reliability Plan, Phase 2 (IRP2). Design and Construction of this project will be in conjunction with work on the same pipelines under the 10- year Pipeline Inspection and Rehabilitation Project. The new line valves will be at various locations along the East, West, and Snell pipeline to accomplish the following objectives:

- Allow the District to isolate sections of the treated water pipeline for general maintenance or to repair activities following a major seismic event.
- Allow the network of emergency wells to operate, even when there is damage upstream and downstream of individual wells.

PROJECT LOCATION



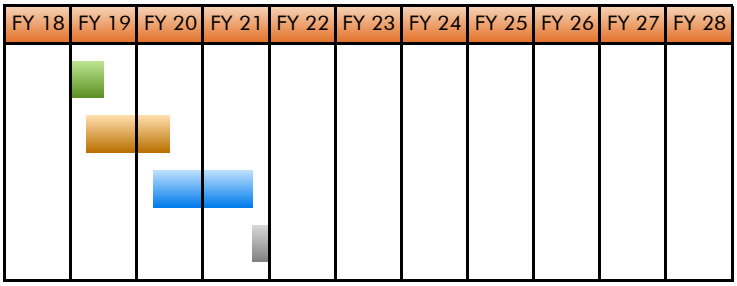
★ Project Location

SCHEDULE & STATUS

July 2019 to June 2021

Line valve construction to be coordinated with pipeline maintenance and rehabilitation projects.

Phase	Cost
Plan	209
Design	1,497
Construct	8,728
Closeout	70
	10,504



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26764001-IRP2 Additional Line Valves	0	0	1,090	616	8,798	0	0	0	10,504
with inflation	0	0	1,090	673	9,826	0	0	0	11,589

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26764001-IRP2 Additional Line Valves	0	0	0	1,090	673	9,826	0	0	0	11,589

FUNDING SOURCES

(in thousands $)

SCVWD Safe Clean Water Fund	11,589
Other Funding Source	0
Total	11,589

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 35 Years

Project Main & Madrone Pipelines Restoration
Program Water Supply - Transmission **Priority No.** 70
District Contact Christopher Hakes CHakes@valleywater.org **Project No.** 26564001

Main Avenue Ponds facing North

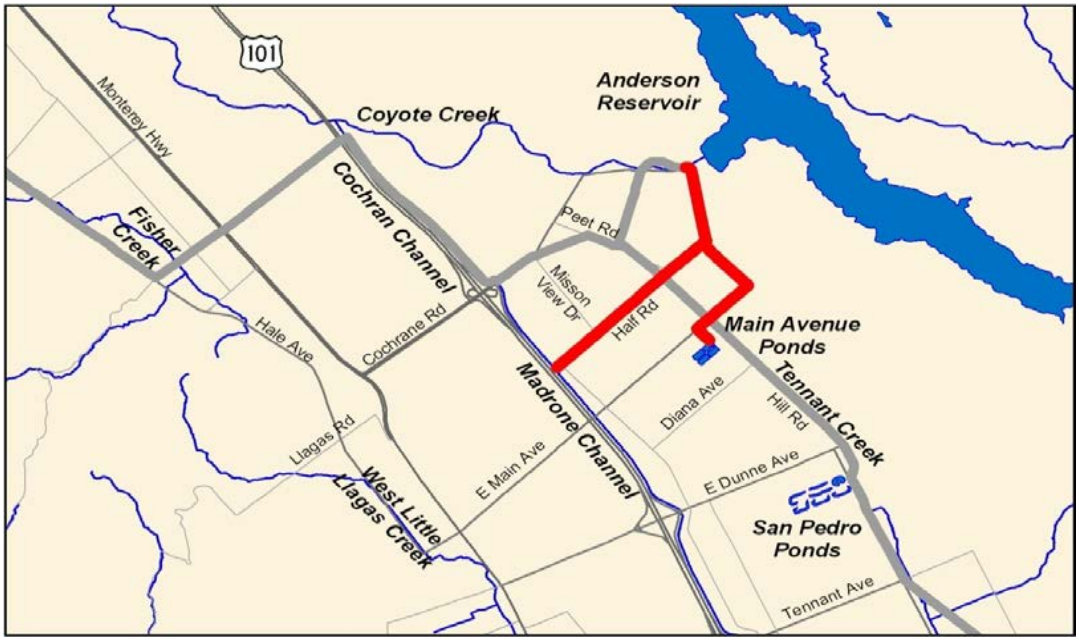
Madrone Pipeline Outlet into Madrone Channel looking North along Northbound Interstate 101

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements on the full length of the Madrone Pipeline and rehabilitates the Main Avenue Pipeline to accomplish the following objectives:

- Provide the means to utilize another reliable water source, (e.g. Anderson Reservoir) to supply water to the Main Avenue Ponds and the Madrone Channel.
- Allow for greater flows to the Main Avenue Ponds and the Madrone Channel.
- Maximize imported water flows to the treatment plants.

PROJECT LOCATION

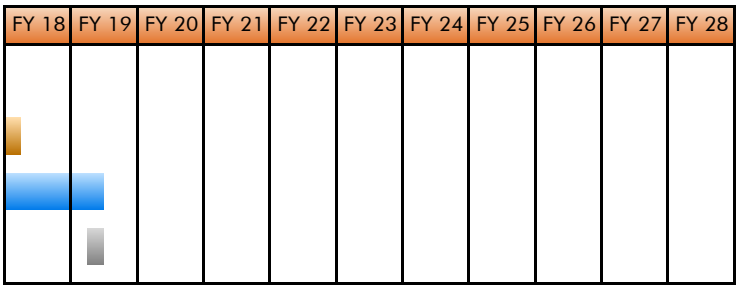


Project Location

SCHEDULE & STATUS

July 2014 to December 2018

Phase	Cost
Plan	337
Design	2,662
Construct	14,535
Closeout	90
	17,703



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26564001-Main & Madrone Pipelines Restoration	2,794	14,617	292	0	0	0	0	0	17,703
with inflation	2,794	14,617	292	0	0	0	0	0	17,703

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26564001-Main & Madrone Pipelines Restoration	2,327	15,084	0	292	0	0	0	0	0	17,703

Adjusted Budget includes adopted budget plus a planned budget adjustment of $467,000.

FUNDING SOURCES

(in thousands $)

SCVWD Safe, Clean Water Fund	6,354
SCVWD Water Utility Enterprise Fund	11,349
Total	17,703

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as it does not significantly alter the facility or modes of operation.

USEFUL LIFE: 40 Years

Project	**Pacheco/Santa Clara Conduit Right of Way Acquisition**
Program	Water Supply – Transmission
Priority No.	75
Project No.	92144001
District Contact	Christopher Hakes CHakes@valleywater.org

Access to much of the San Felipe Division pipelines must currently be made through private property, due to a lack of easements, such as Bloomfield access at Vault 21-23.

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements related to the acquisition of right-of-way along the South County Pipeline to accomplish the following objectives:

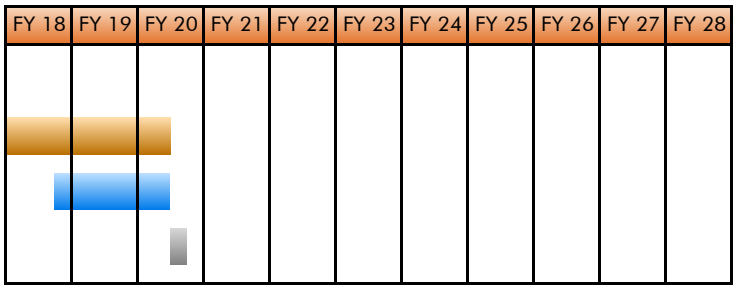
- Provide unlimited access to District owned pipeline.
- Reduce conflicts with local land owners and improve response time for emergency repairs or operations.

PROJECT LOCATION

SCHEDULE & STATUS

July 2009 to February 2020

Phase	Cost
Plan	1,178
Design	2,403
Construct	1,071
Closeout	35
	4,687



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92144001-Pacheco/Santa Clara Conduit Right of Way Acquisition	1,389	1,506	1,514	353	0	0	0	0	4,762
with inflation	1,389	1,506	1,514	385	0	0	0	0	4,794

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
92144001-Pacheco/Santa Clara Conduit Right of Way Acquisition	1,861	1,034	0	1,514	385	0	0	0	0	4,794

Adjusted Budget includes adopted budget plus a plannded budget adjustment of $782,000.

FUNDING SOURCES

(in thousands $)

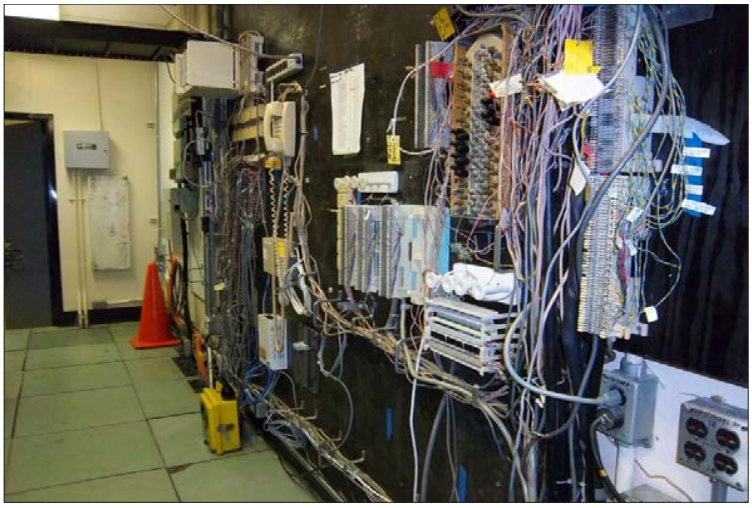
SCVWD Water Utility Enterprise Fund	4,026
San Benito County Water District	768
Total	**4,794**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $8,000 per year, beginning in FY 2020, for vegetation control and/or maintenance of fences, gates and locks for the access roads.

USEFUL LIFE: 15-20 Years

Project	**SCADA Remote Architecture and Communications Upgrade**
Program	Water Supply – Transmission
Priority No.	74
Project No.	92374005
District Contact	Christopher Hakes chakes@valleywater.org



Raw Water Control Center Hub at Rinconada Water Treatment Plant similar to what will be installed at other facilities

PROJECT DESCRIPTION

This project plans, designs, and implements improvements to the back-up raw water control center and Process Control Systems (SCADA) telemetry to accomplish the following objectives:

- Construct a water control center that eliminates suceptability to a single point of failure.
- Upgrade the SCADA telemetry system to remove the single points of failure and to provide a robust and reliable telemetry system.

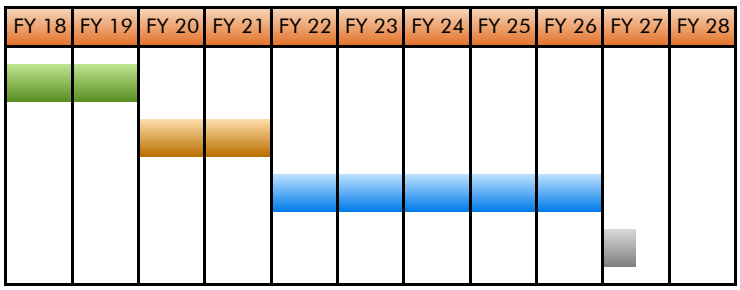
PROJECT LOCATION

★ Project Location

SCHEDULE & STATUS

July 2015 to December 2026

Phase	Cost
Plan	1,210
Design	554
Construct	4,300
Closeout	100
	6,164



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92374005-SCADA Remote Architecture and Communications Upgrade	247	353	612	280	274	860	860	2,680	6,166
with inflation	247	353	612	306	313	1,026	1,072	3,662	7,590

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
92374005-SCADA Remote Architecture and Communications Upgrade	776	186	362	250	306	313	1,026	1,072	3,662	7,590

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	5,974
San Benito County Water District	1,615
Total	7,590

OPERATING COST IMPACTS

The completion of this project is anitcipated to increase operating costs by approximately $80,440 per year, beginning in FY 2026 for operational support provided by control technicians, IT technicians, and SCADA engineers.

USEFUL LIFE: 25 Years

Project	**Small Capital Improvements, Raw Water Transmission**
Program	Water Supply – Transmission
Priority No.	73
Project No.	92764009
District Contact	Kurt Arends karends@valleywater.org

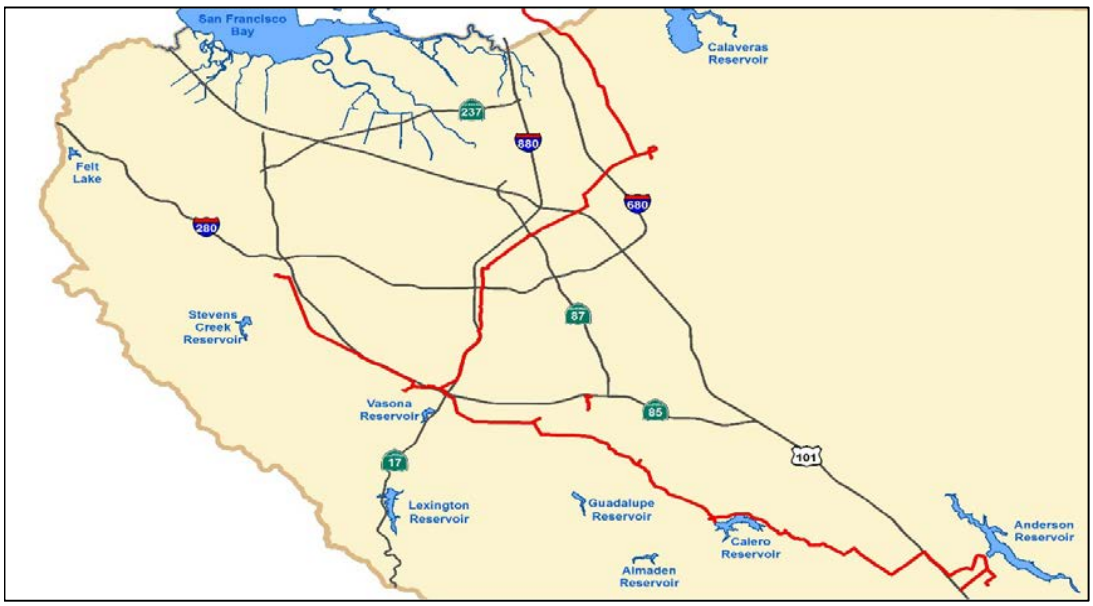
Major repair and replacement of turnout roofs and similar small raw water capital projects will be completed in accordance with the asset management plan.

PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project will repair or rehabilitate various existing raw water distribution facilities. These activities include identifying and fixing corrosion problems, replacing valves and other appurtenances and modifying water recharge facilities to avoid failure of the raw water transmission system and extend the life of the infrastructure. This project is part of the District's 10-year asset management program. Planned projects for FY 19 include:

- Replace two roofs at the Piedmont Valve Yard.
- Replace roof at Kirk Ditch turnout.
- Replace roof at Guadalupe turnout.
- Replace roofing at both the Norwood and Ocala turnouts.

PROJECT LOCATION



Project Location

SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost
Plan	n/a
Design	n/a
Construct	n/a
Closeout	n/a
	n/a

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92764009-Small Capital Improvements, Raw Water Transmission	n/a	321	849	77	0	77	0	2,163	3,487
with inflation	n/a	321	849	84	0	92	0	3,227	4,573

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
92764009-Small Capital Improvements, Raw Water Transmission	n/a	321	0	849	84	0	92	0	3,227	4,573

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	4,573
Other Funding Source	0
Total	4,573

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: Not Available

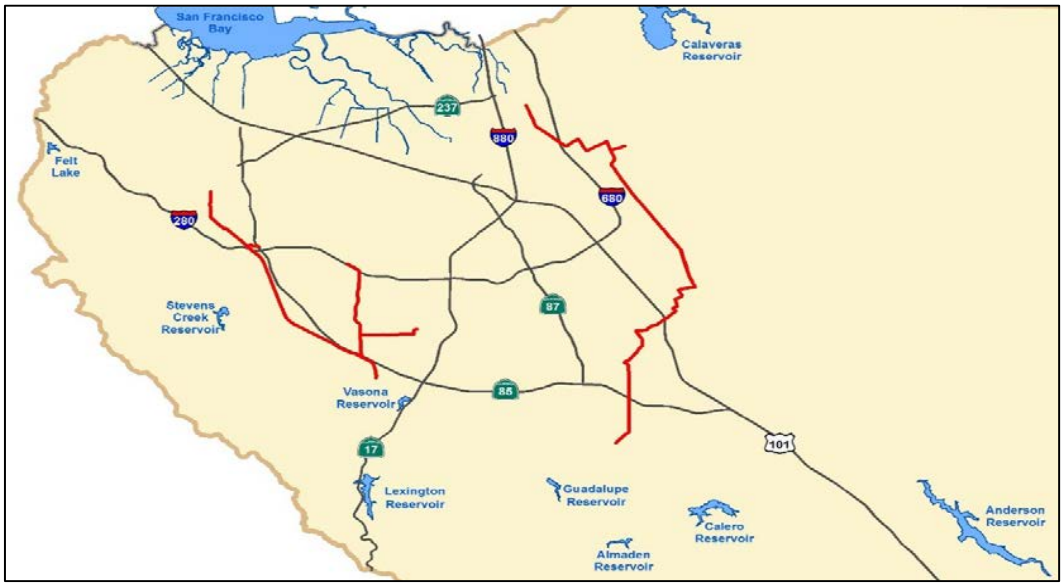
Project	**Small Capital Improvements, Treated Water Transmission**
Program	Water Supply – Transmission
Priority No.	73
Project No.	94764006
District Contact	Kurt Arends karends@valleywater.org

Valve installation in the Piedmont Line Valve Vault; Similar small capital projects will be carried out at treated water transmission facilities according to the asset management plan.

PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project will repair or rehabilitate various existing treated water distribution facilities, such as identifying and treating corrosion problems, replacing valves and other appurtenances and repairing or adding turnouts to avoid failure of the treated water transmission system and to extend the life of the infrastructure. This project is part of the District's 10-year asset management program.

PROJECT LOCATION



Project Location

SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost
Plan	n/a
Design	n/a
Construct	n/a
Closeout	n/a
	n/a

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
94764006-Small Capital Improvements, Treated Water Transmission	n/a	0	0	139	0	0	0	0	139
with inflation	n/a	0	0	152	0	0	0	0	152

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
94764006-Small Capital Improvements, Treated Water Transmission	n/a	0	0	0	152	0	0	0	0	152

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	152
Other Funding Source	0
Total	**152**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: Not Available

Project	**Treated Water Isolation Valves**
Program	Water Supply – Transmission
Priority No.	62
Project No.	94084007
District Contact	Chris Hakes chakes@valleywater.org

New line valves similar to this will be installed at three locations within the treated water system.

PROJECT DESCRIPTION

This project plans, designs, and constructs three (3) additional line valve appurtenances to accomplish the following objectives:

- Improve service levels to treated water system customers in a major hazard event or system outage.
- Improve the District's ability to take sections of the treated water distribution system out of service for maintenance activities.

PROJECT LOCATION

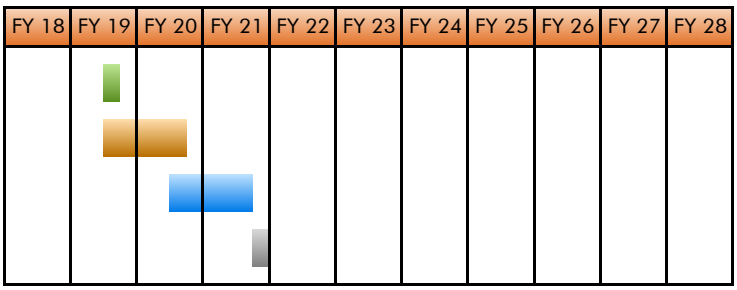
★ Project Location

SCHEDULE & STATUS

December 2018 to June 2021

Line valve construction to be coordinated with other pipeline maintenance and rehabilitation projects.

Phase	Cost
Plan	162
Design	1,095
Construct	6,116
Closeout	53
	7,426



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
94084007-Treated Water Isolation Valves	0	0	529	728	6,169	0	0	0	7,426
with inflation	0	0	529	795	6,891	0	0	0	8,215

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
94084007-Treated Water Isolation Valves	0	0	0	529	795	6,891	0	0	0	8,215

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	8,215
Other Funding Sources	0
Total	8,215

OPERATING COST IMPACTS

The operating budget impact for the three proposed line valve facilities is estimated to be $21,000 per year beginning in FY22.

USEFUL LIFE: 50 Years

Project	**Vasona Pump Station Upgrade**
Program	Water Supply – Transmission
Priority No.	67
Project No.	92264001
District Contact	Christopher Hakes chakes@valleywater.org

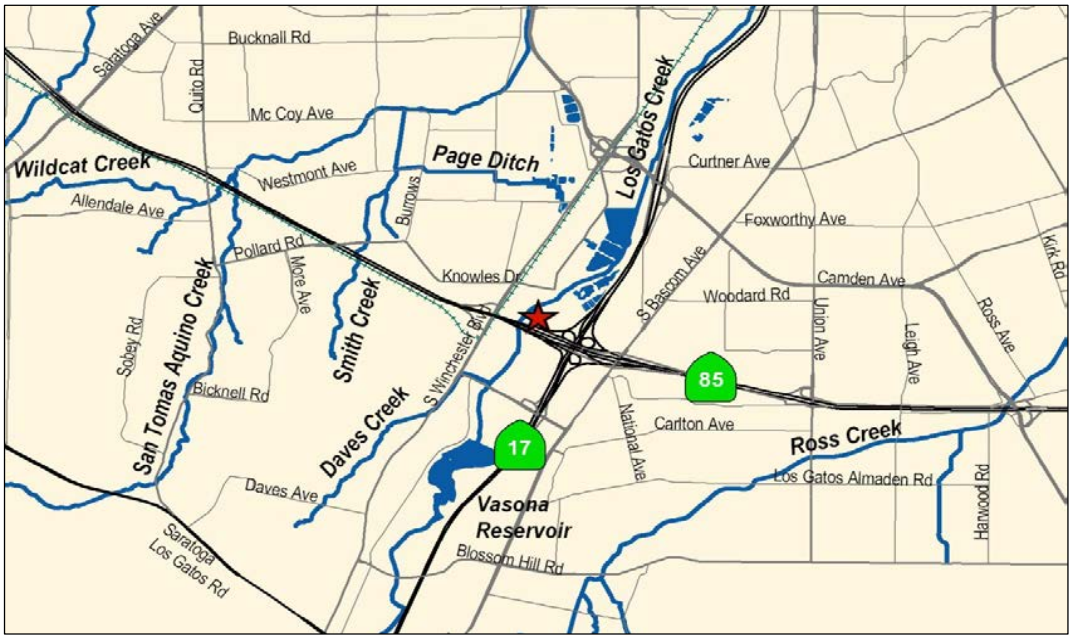
Vasona Pumping Plant pump

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Vasona Pump Station, including replacing aging pumps, motors, drives, valves, actuators, and electrical and control systems that have reached the end of their useful life; and adding one redundant pump. The project will accomplish the following objectives:

- Eliminate the risk of failure by replacing assets that have reached the end of their useful life, including four pumps (two 200 horsepower, two 400 horsepower) and associated motors, drives, electrical and control systems, as well as pump discharge and suction valves and actuators.
- Increase operational flexibility and prepare for future capacity needs by adding one redundant pump and increasing the size of the two 200 horsepower pumps.

PROJECT LOCATION

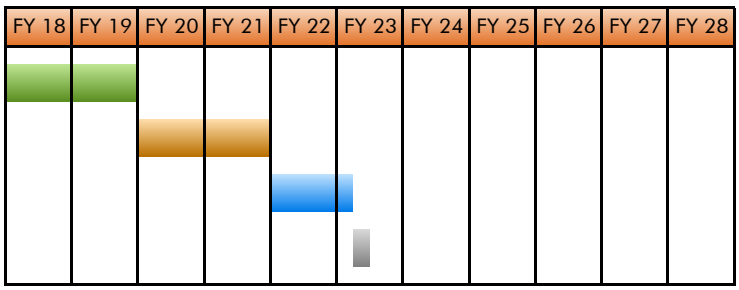


★ Project Location

SCHEDULE & STATUS

July 2016 to December 2022

Phase	Cost
Plan	1,379
Design	1,545
Construct	15,600
Closeout	70
	18,594



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92264001-Vasona Pump Station Upgrade	1	350	1,029	1,065	480	15,200	470	0	18,595
with inflation	1	350	1,029	1,163	548	17,541	586	0	21,218

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
92264001-Vasona Pump Station Upgrade	119	712	480	549	1,163	548	17,541	586	0	21,218

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	21,218
Other Funding Sources	0
Total	**21,218**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $70,000 per year beginning in FY 2023.

USEFUL LIFE: 50 Years

Project	**Westside Retailer Interties**
Program	Water Supply – Transmission
Priority No.	76
Project No.	94084008
District Contact	Christopher Hakes chakes@valleywater.org

New interties similar to this will be installed in the cities of Santa Clara and Mountain View.

PROJECT DESCRIPTION

This project plans, designs, and constructs two new retailer interties and associated appurtenances, structures, and controls in the cities of Santa Clara and Mountain View. The project will accomplish the following objectives:

- Improve service levels to the West treated water system customers in a major hazard event or system outage.
- Improve the District's ability to take sections of the West treated water distribution system out of service for maintenance activities.

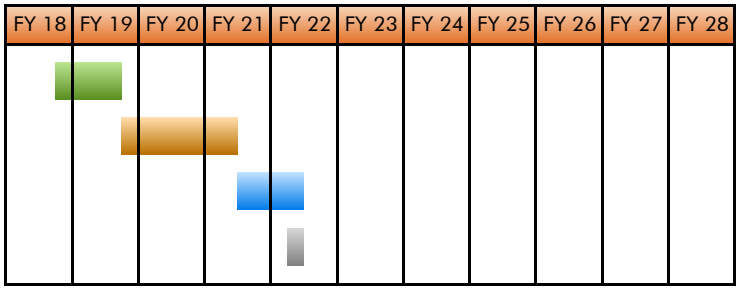
PROJECT LOCATION

★ Project Location

SCHEDULE & STATUS

July 2015 to December 2026

Phase	Cost
Plan	150
Design	386
Construct	1,250
Closeout	24
	1,810



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
94084008-Westside Retailer Interties	0	80	67	328	1,239	96	0	0	1,810
with inflation	0	80	67	358	1,385	114	0	0	2,004

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
94084008-Westside Retailer Interties	0	80	0	67	358	1,385	114	0	0	2,004

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	2,004
Other Funding Sources	0
Total	**2,004**

OPERATING COST IMPACTS

The operating budget impact for the two proposed Interties is estimated to be $11,000 per year beginning in FY22.

USEFUL LIFE: 50 Years

Treatment Facilities

Treatment Facilities

- 3 Treatment Plants
- 8 Capital Projects

Project PWTP Residuals Management
Program Water Supply - Treatment
District Contact Katherine Oven koven@valleywater.org

Priority No. 74
Project No. 93234044

Existing belt press to be replaced with new residuals management facility

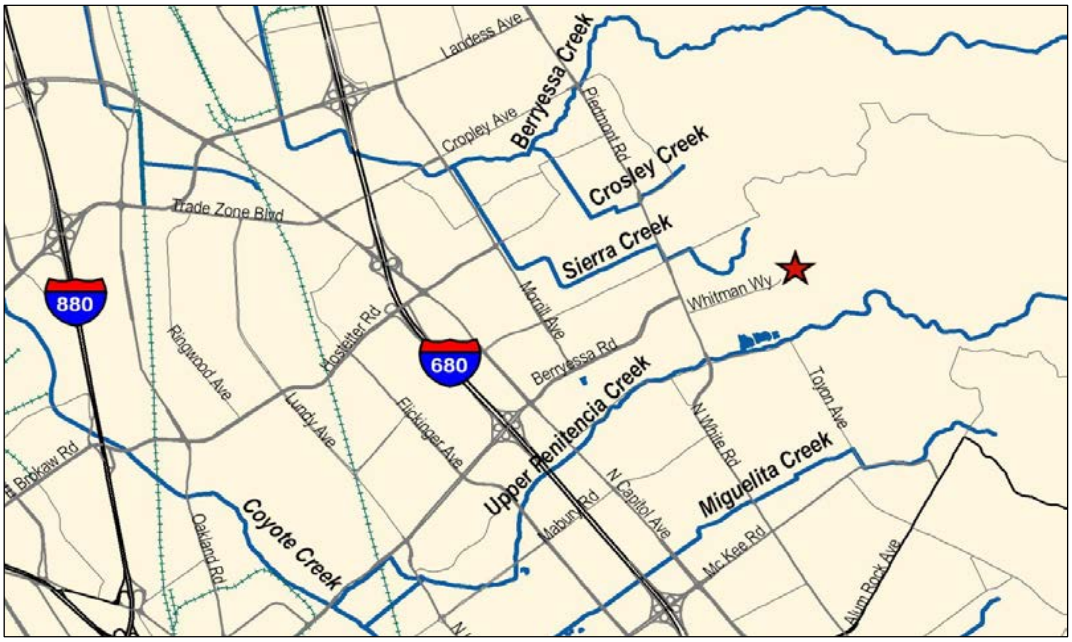
Existing belt press to be replaced with new residuals management facility

PROJECT DESCRIPTION

This project plans, designs, and constructs modifications to the Penitencia Water Treatment Plant (PWTP) residuals management process to accomplish the following objectives:

- Extend the useful life of the treatment plant.
- Improve the efficiency of the residual management processes.
- Minimize or eliminate (existing) operational constraints and impacts to the drinking water treatment process.
- Minimize risk of discharge violations.
- Improve the reliability of PWTP.

PROJECT LOCATION

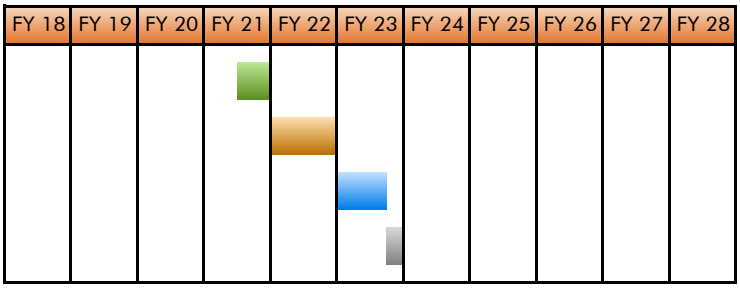


★ Project Location

SCHEDULE & STATUS

January 2019 to June 2021

Phase	Cost
Plan	650
Design	1,300
Construct	6,925
Closeout	-
	8,875



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93234044-PWTP Residuals Management	0	0	0	0	650	1,300	6,925	0	8,875
with inflation	0	0	0	0	742	1,550	8,279	0	10,571

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
93234044-PWTP Residuals Management	0	0	0	0	0	742	1,550	8,279	0	10,571

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	10,571
Other Funding Sources	0
Total	10,571

OPERATING COST IMPACTS

Operating cost impacts will be determined during the construction phase.

USEFUL LIFE: Not Available

Project RWTP Residuals Remediation
Program Water Supply - Treatment
District Contact Christopher Hakes CHakes@valleywater.org
Priority No. 84
Project No. 93294051s

Centrifuge for mechanical dewatering of sludge

New gravity thickeners and mix tank for sludge thickening and blending

PROJECT DESCRIPTION

This project plans, designs, and constructs modifications to the Rinconada Water Treatment Plant (RWTP) residuals management processes and will accomplish the following objectives:

- Extend the useful life of the treatment plant.
- Improve the efficiency of the residual management processes.
- Minimize risk of discharge violations.
- Improve the reliability of RWTP.

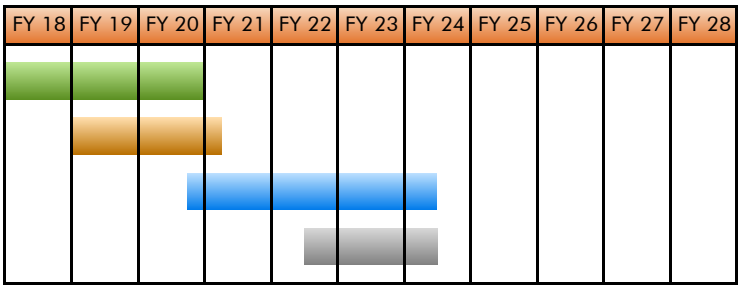
PROJECT LOCATION

★ Project Location

SCHEDULE & STATUS

July 2008 to March 2020

Phase	Cost
Plan	2,179
Design	11,477
Construct	47,180
Closeout	280
	61,922



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**Future**	
93294051-RWTP FRP Residuals Management	29,175	3,190	4,233	1,375	800	800	75	75	39,723
with inflation	29,175	3,190	4,233	1,502	913	954	93	98	40,158
93294058-RWTP Residuals Remediation	0	3,400	1,599	1,120	12,460	1,230	1,835	555	22,199
with inflation	0	3,400	1,599	1,223	13,862	1,467	2,257	723	24,531
TOTAL	**29,175**	**6,590**	**5,832**	**2,495**	**13,260**	**2,030**	**1,910**	**630**	**61,922**
with inflation	**29,175**	**6,590**	**5,832**	**2,725**	**14,775**	**2,421**	**2,351**	**820**	**64,689**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	**FY17**	**FY18**		**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**Future**	
93294051-RWTP FRP Residuals Management	21,520	17,053	6,208	0	0	439	954	93	98	40,158
93294058-RWTP Residuals Remediation		5,000	1,600	0	1,222	13,862	1,467	2,257	723	24,531
TOTAL	21,520	22,053	7,808	0	1,222	14,301	2,421	2,351	820	64,689

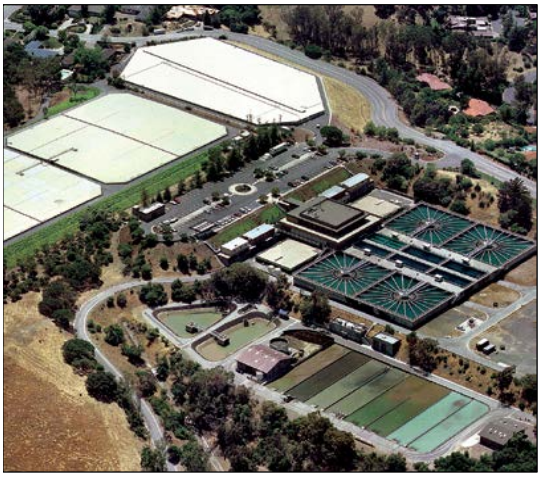
Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	64,689
Other Funding Source	0
Total	**64,689**

Project RWTP Reliability Improvement
Program Water Supply - Treatment
District Contact Christoper Hakes CHakes@valleywater.org
Priority No. 91
Project No. 93294057



Aerial view of the
Rinconada Water Treatment Plant facing west

Artist rendering of the aerial view of the Rinconada
Water Treatment Plant facing south after construction

PROJECT DESCRIPTION

This project plans, designs, and constructs new facilities at Rinconada Water Treatment Plant (RWTP) that will improve plant reliability by accomplishing the following objectives:

- Construct a new raw water ozonation facility.
- Construct a new flocculation and plate settler clarification facility.
- Implement a dual media filtration system.
- Increase plant capacity to 100 million gallons per day (MGD).

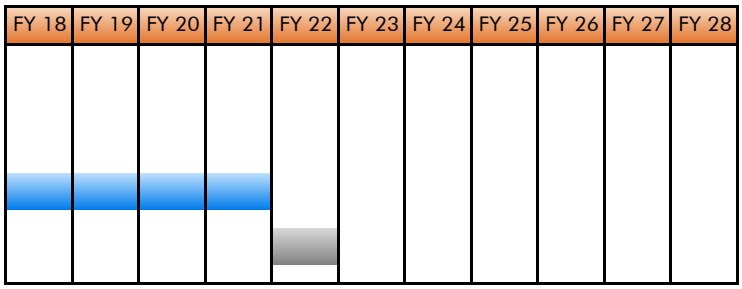
PROJECT LOCATION

★ Project Location

SCHEDULE & STATUS

July 2009 to June 2022

Phase	Cost
Plan	1,886
Design	19,473
Construct	250,656
Closeout	120
	286,779



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93294057-RWTP Reliability Improvement	116,045	48,144	47,155	46,700	28,615	120	0	0	286,779
with inflation	116,045	48,144	47,155	47,629	30,116	143	0	0	289,232

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
93294057-RWTP Reliability Improvement	116,221	48,144	176	46,979	47,629	30,116	143	0	0	289,232

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	289,232
Other Funding Source	0
Total	**289,232**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $1.4 million per year, beginning in FY 2023. Increases are for routine maintenance and operation of new equipment.

USEFUL LIFE:

Media – 20 Years, Structures – 50 Years, Equipment – 15 Years

Project	**RWTP Treated Water Valves Upgrade**
Program	Water Supply – Treatment
Priority No.	84
Project No.	93294056
District Contact	Christopher Hakes CHakes@valleywater.org

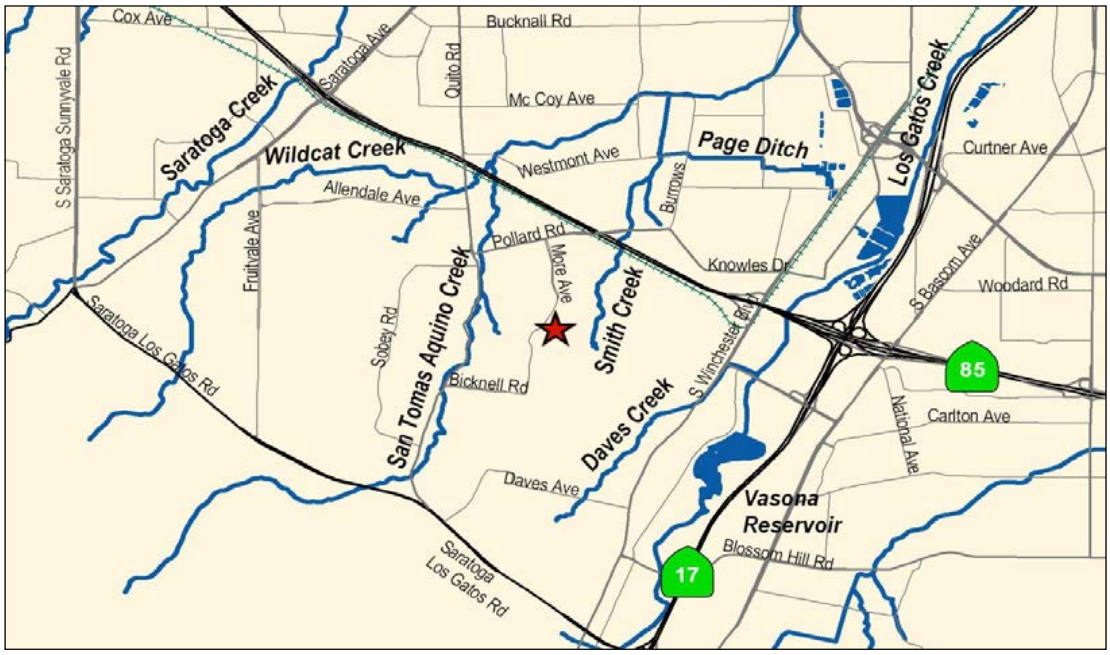
Example of a valve to be replaced or upgraded

PROJECT DESCRIPTION

This project plans, designs, and constructs modifications to the Rinconada Water Treatment Plant (RWTP), including seismically strengthening the chemical storage structures; replacing/upgrading the valves and appurtenances used to control treated water at the clearwells and the Ronconada Reservoir; repairing a damaged baffle wall in the Rinconada Reservoir; and installing a 48-inch magnetic flow meter on the treatment plant's treated water effluent pipeline. Consistent with the Facility Renewal Program (FRP), this project will accomplish the following objectives:

- Ensure plant operational reliability.
- Improve ability to maintain the plant.
- Allow for better isolation of the treated water control valves for future work.
- Achieve greater accuracy in measuring treated water deliveries.

PROJECT LOCATION

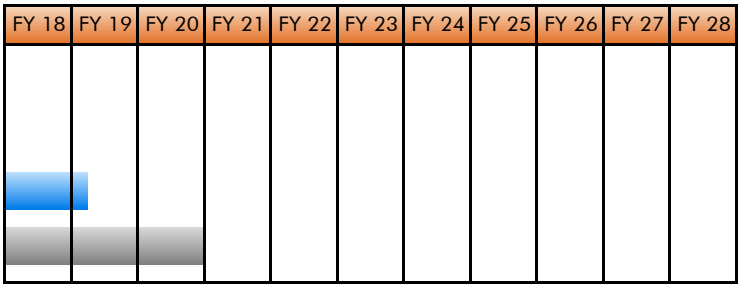


★ Project Location

SCHEDULE & STATUS

July 2009 to March 2020

Phase	Cost
Plan	465
Design	1,476
Construct	6,786
Closeout	38
	8,765



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93294056-RWTP Treated Water Valves Upgrade	8,240	353	10	191	0	0	0	0	8,794
with inflation	8,240	353	10	209	0	0	0	0	8,812

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
93294056-RWTP Treated Water Valves Upgrade	8,424	170	1	9	209	0	0	0	0	8,812

Adjusted Budget includes adopted budget plus approved budget adjustments

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	8,812
Other Funding Source	0
Total	8,812

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operations.

USEFUL LIFE: 40 Years

Project	**Small Capital Improvements, Water Treatment**
Program	Water Supply – Treatment
Priority No.	73
Project No.	93764004
District Contact	Angela Cheung acheung@valleywater.org

Sludge pond sediment removal at Santa Teresa Water Treatment Plant

PROJECT DESCRIPTION

This project provides resources for small capital improvements that replace or extend the life of an asset. This project implements a systematic approach of equipment replacement and renewal at the three water treatment plants and laboratory by designing and constructing improvements identified as part of the District's 10-year asset management program. Typical activities included in this project include pump, motor, instrumentation and valve replacement; chemical tank repairs; and large-scale renewal and replacement activities like clarifier mechanism overhaul and replacement. Planned projects to complete for Santa Teresa Water Treatment Plant (STWTP), Penitencia Water Treatment Plan (PWTP), Rinconada Water Treatment Plant (RWTP), West Pipeline, and Silicon Valley Advanced Water Purification Center (SVAWPC) include:

- Provide engineering, supplies, and services support for the Sulfuric Acid Water Quality project.
- Purchase Laboratory Information Management System (LIMS).
- Complete Small Capital Projects at STWTP, RWTP, PWTP and Campbell Well Field.

PROJECT LOCATION

SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost
Plan	n/a
Design	n/a
Construct	n/a
Closeout	n/a
	n/a

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93764004-Small Capital Improvements, Water Treatment	n/a	2,512	3,578	7,014	6,732	3,247	253	11,208	34,544
with inflation	n/a	2,512	3,578	7,659	7,682	3,872	315	16,943	42,562

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
93764004-Small Capital Improvements, Water Treatment	n/a	2,512	0	3,578	7,659	7,682	3,872	315	16,943	42,562

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Excess funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

FUNDING SOURCES

(in thousands $)

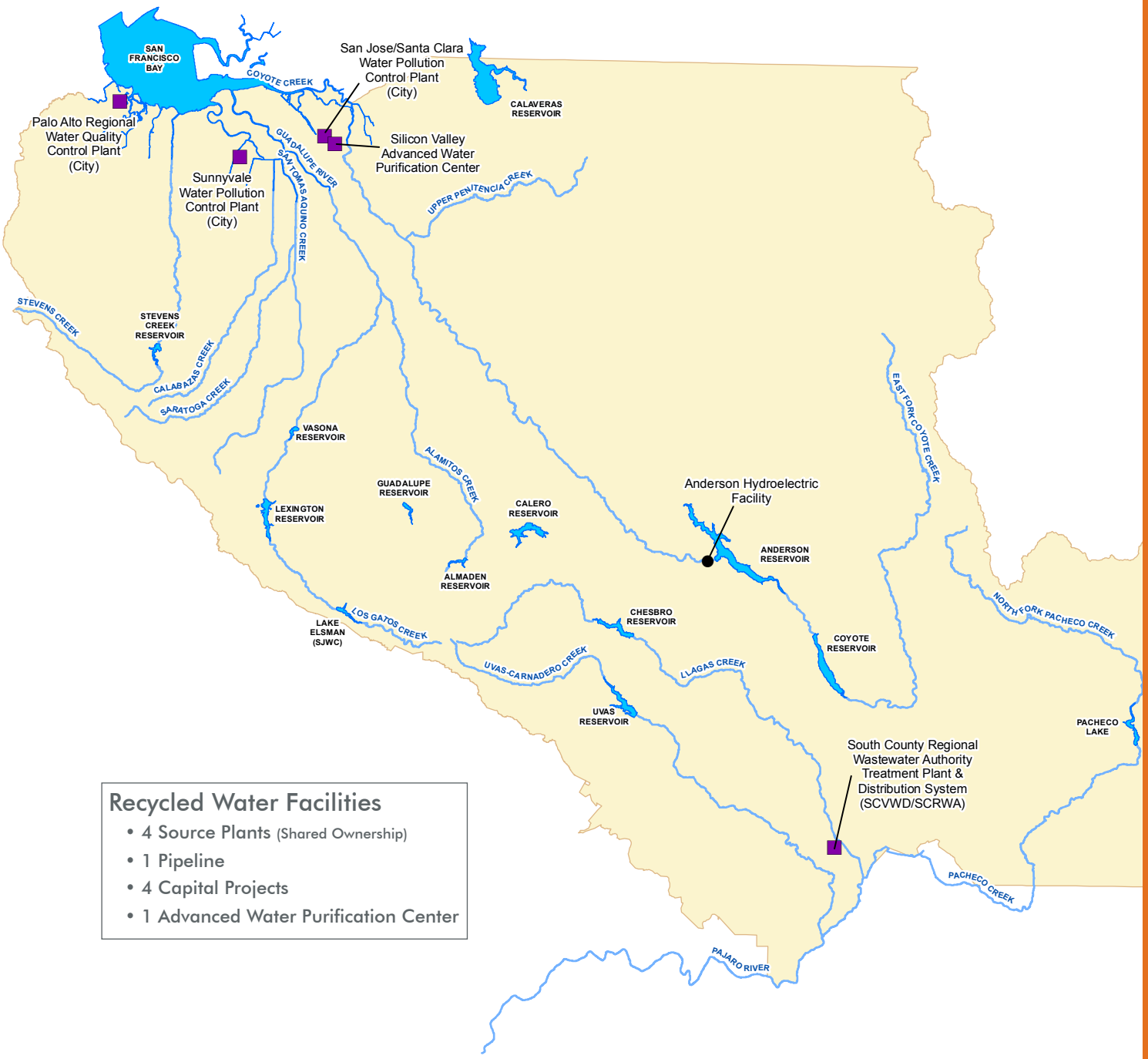
SCVWD Water Utility Enterprise Fund	42,562
Other Funding Source	0
Total	**42,562**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: Not Available

Recycled & Purified Water Facilities



Recycled Water Facilities

- 4 Source Plants (Shared Ownership)
- 1 Pipeline
- 4 Capital Projects
- 1 Advanced Water Purification Center

Project	**Expedited Purified Water Program**
Program	Water Supply – Recycled Water
Priority No.	71
Project No.	91304001s
District Contact	Katherine Oven koven@valleywater.org

Reverse osmosis membranes used for water purification

PROJECT DESCRIPTION

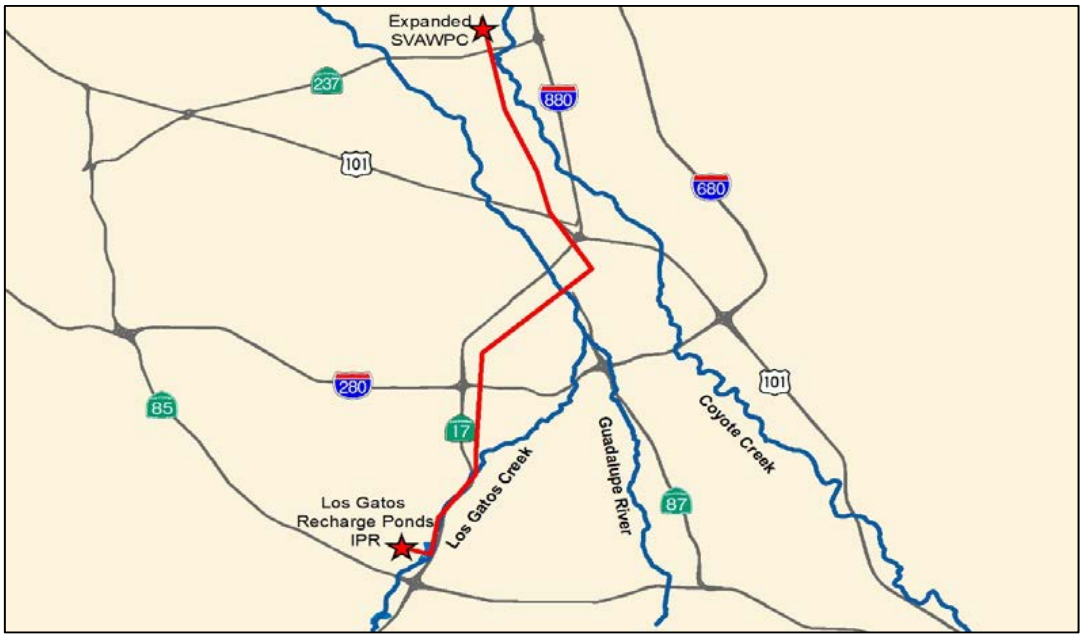
This project plans, designs, and constructs new infrastructure, proposed in the District's 2012 Water Supply Master Plan, using a P3 delivery method, to accomplish the following objectives:

- Expand the District's long-term water supply portfolio.
- Ensure a drought-proof and reliable water supply for Silicon Valley.

Project elements may include, but are not limited to:

- Expansion of the Silicon Valley Advanced Water Purification Center to produce up to an additional 24 million gallons per day (MGD) of advanced purified water.
- Installation of pipelines to convey advanced purified water to the District's existing groundwater recharge ponds for indirect potable reuse, or to the District's conventional surface water treatment plants for use as raw water augmentation (direct potable reuse).
- Installation of purified water injection wells at strategic locations to improve groundwater basin management.

PROJECT LOCATION



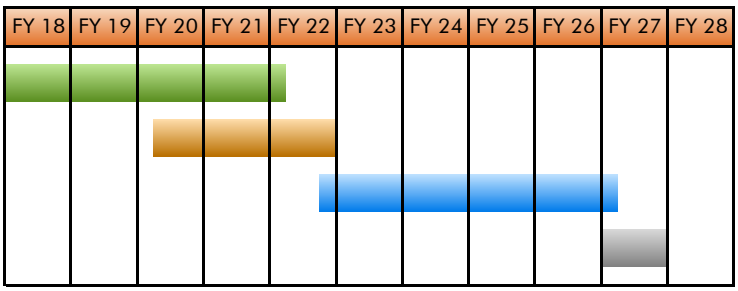
★ Project Location

SCHEDULE & STATUS

April 2015 to June 2027

This project will be designed and constructed through a P3 delivery method.

Phase	Cost
Plan	21,623
Design	476
Construct	152,797
Closeout	-
	183,374



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91304001 - Indirect Potable Water Reuse Projects - Planning	15,763	2,300	4,435	5,805	6,796	28,440	54,705	63,964	182,208
with inflation	15,763	2,300	4,435	6,339	7,593	32,637	64,979	78,253	212,299
91284009 - Silicon Valley Advanced Water Purification Center Expansion	679	231	0	0	0	0	0	0	910
with inflation	679	231	0	0	0	0	0	0	910
91384001 - Purified Water Pipelines	33	223	0	0	0	0	0	0	256
with inflation	33	223	0	0	0	0	0	0	256
TOTAL	16,475	2,754	4,435	5,805	6,796	28,440	54,705	63,964	183,374
with inflation	16,475	2,754	4,435	6,339	7,593	32,637	64,979	78,253	213,465

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91304001 - Indirect Potable Water Reuse Projects - Planning	16,483	2,727	1,147	3,288	6,339	7,593	32,637	64,979	78,253	212,299
91284009 - Silicon Valley Advanced Water Purification Center Expansion	910	0	0	0	0	0	0	0	0	910
91384001 - Purified Water Pipelines	256	0	0	0	0	0	0	0	0	256
TOTAL	17,649	2,727	1,147	3,288	6,339	7,593	32,637	64,979	78,253	213,465

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	213,465
Other Funding Sources	0
Total	213,465

OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

USEFUL LIFE: Not Available

Project	**Long-Term Purified Water Program Elements**
Program	Water Supply – Recycled Water
Priority No.	71
Project No.	91C40389
District Contact	Katherine Oven koven@valleywater.org

Water is exposed to ultraviolet light in the purification process

PROJECT DESCRIPTION

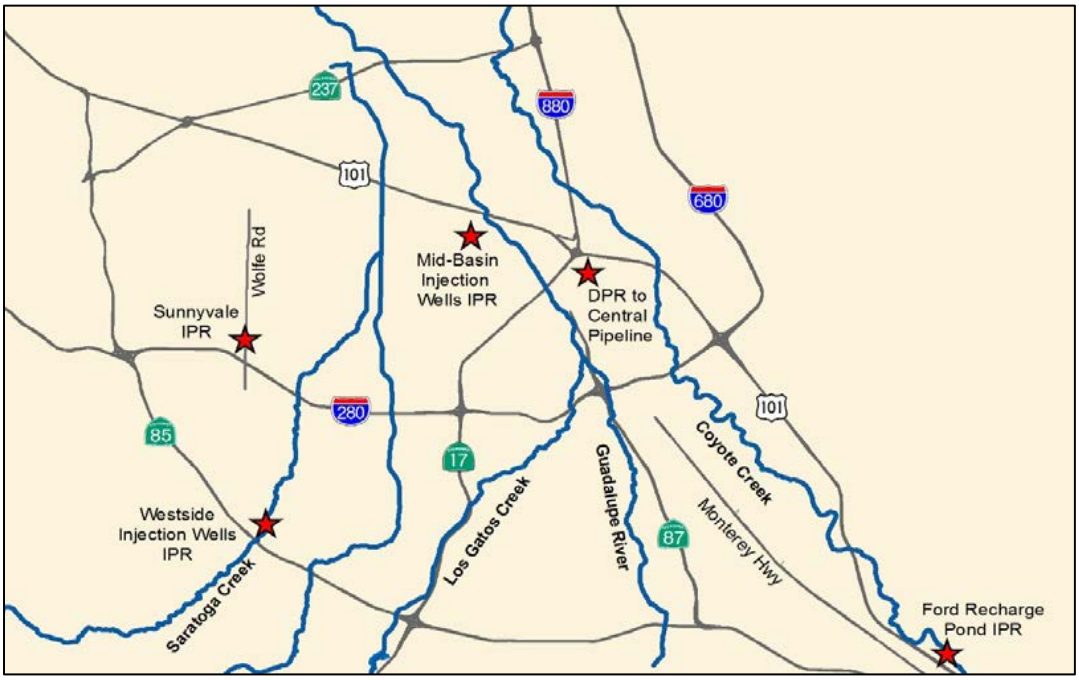
This project plans, designs, and constructs new infrastructure to accomplish the following objectives:

- Expand the District's long-term water supply portfolio beyond 2040.
- Ensure a drought-proof and reliable water supply for Silicon Valley.

Project elements may include, but are not limited to:

- Installation of purified water injection wells at strategic locations to improve groundwater basin management.
- Construction and operation of an advanced water purification center for groundwater recharge at Ford Ponds.
- Partnership with the City of Sunnyvale to implement advanced water purification facilities at the City's wastewater treatment plant for groundwater recharge.

PROJECT LOCATION



★ Project Location

SCHEDULE & STATUS

July 2022 to June 2026

This project will be designed and constructed through a P3 delivery method.

Phase	Cost
Plan	-
Design	-
Construct	88,765
Closeout	-
	88,765

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91C40389 - Long-term Purified Water Program Elements	0	0	0	0	0	0	22,191	66,574	88,765
with inflation	0	0	0	0	0	0	26,356	83,909	110,265

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91C40389 - Long-term Purified Water Program Elements	0	0	0	0	0	0	0	26,356	83,909	110,265
TOTAL	0	0	0	0	0	0	0	26,356	83,909	110,265

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	110,265
Other Funding Sources	0
Total	110,265

OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

USEFUL LIFE: Not Available

Project	**South County Recycled Water Pipeline**
Program	Water Supply – Recycled Water
Priority No.	52
Project No.	91094007s
District Contact	Christopher Hakes chakes@valleywater.org

Purple recycled water pipe waiting to be laid during construction of Immediate Term project

PROJECT DESCRIPTION

This project plans, designs, and constructs water recycling systems based on the South County Recycled Water Master Plan accepted in December 2004 to improve system redundancy, reliability, and capacity. The current Master Plan report presents a 20-year capital program for expanding water recycling in South County in three phases; Immediate Term, Short Term, and Long Term:

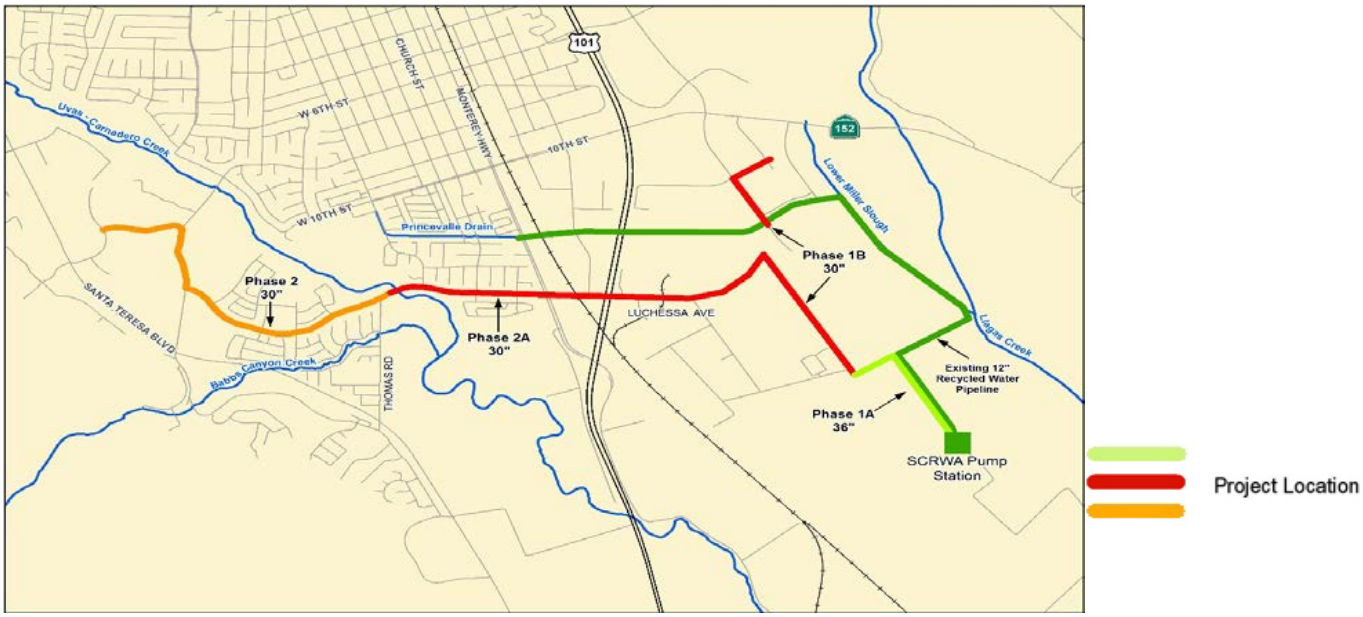
Completed:

- 91094007 Recycled Water South County Masterplan (Immediate Term) which included design and construction of recycled water storage, pumping, and distribution facilities for agricultural use near the SCRWA treatment plant.
- 91094008 Recycled Water South County Masterplan (Short Term 1A), installation of approximately 3,000 feet of 30-inch and 36-inch pipeline.

Currently Underway:

- 91094009 South County Recycled Water Pipeline (Short Term) Phase 1B will construct an additional 14,000 linear feet of pipeline.
- 91094010 South County Recycled Water Pipeline (Shoert Term) Phase 2 will be completed through cost-sharing opportunities with the City of Gilroy and land developers to construct approximately 3,900 linear feet of 30-inch diameter pipe.
- 91094010 South County Recycled Water Pipeline (Long Term) Phase 1 to be completed through cost-sharing opportunities with the land developers through coordination by the City of Gilroy to construct approximately 9,200 linear feet of 24-inch diameter pipe.

PROJECT LOCATION

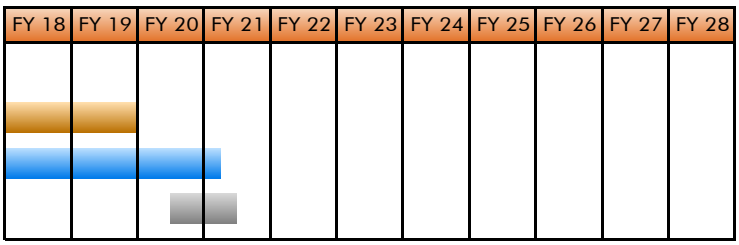


SCHEDULE & STATUS

July 2009 to December 2020

The schedule chart shows Short-Term Phase 1B and Phase 2 projects only. The Immediate-Term and Short-Term Phase 1A projects are complete.

Phase	Cost
Plan	3,032
Design	10,696
Construct	40,535
Closeout	155
	55,723



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91094007-Recycled Water South County Masterplan - Immediate Term	3,257	0	0	0	0	0	0	0	3,257
with inflation	3,257	0	0	0	0	0	0	0	3,257
91094008-Recycled Water South County Masterplan - Short Term 1A	5,391	0	0	0	0	0	0	0	5,391
with inflation	5,391	0	0	0	0	0	0	0	5,391
91094009-South County Recycled Water Pipeline - Short Term 1B	8,981	875	5,662	21,237	1,995	0	0	0	38,750
with inflation	8,981	875	5,662	22,149	2,166	0	0	0	39,833
91094010-South County Recycled Water Pipeline - Short Term 2	4,267	3,407	262	389	0	0	0	0	8,325
with inflation	4,267	3,407	262	417	0	0	0	0	8,353
TOTAL	**21,896**	**4,282**	**5,924**	**21,626**	**1,995**	**0**	**0**	**0**	**55,723**
with inflation	**21,896**	**4,282**	**5,924**	**22,566**	**2,166**	**0**	**0**	**0**	**56,834**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91094007-Recycled Water South County Masterplan - Immediate Term	3,257	0	0	0	0	0	0	0	0	3,257
91094008-Recycled Water South County Masterplan - Short Term 1A	5,391	0	0	0	0	0	0	0	0	5,391
91094009-South County Recycled Water Pipeline - Short Term 1B	16,159	0	6,303	0	21,508	2,166	0	0	0	39,833
91094010-South County Recycled Water Pipeline - Short Term 2	8,108	0	434	0	245	0	0	0	0	8,353
TOTAL	**32,915**	**0**	**6,737**	**0**	**21,753**	**2,166**	**0**	**0**	**0**	**56,834**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	50,728
South County Regional Wastewater Authority	811
United States Bureau of Reclamation (USBR) ARRA	1,295
United States Bureau of Reclamation (USBR) Title 16	4,000
Total	**56,834**

OPERATING COST IMPACTS

Estimated District share of the operating and maintenance costs are $8,000 per year for the Immediate-Term phase, beginning in FY 2007 and an additional $25,000 for the Short-Term Phase 1, beginning in FY 2019. Increases for Immediate Term are primarily labor costs for operating the new 3mg reservoir and its pump station. Increases for Short Term are labor and materials to maintain the 42,000 feet of new pipeline, exercising valves and cathodic protection.

USEFUL LIFE: Pipelines – 50 Years, Pumps – 20 Years

Flood Protection

Flood Protection Capital Improvements

FLOOD PROTECTION OVERVIEW

The District manages approximately 800 miles of creeks in Santa Clara County to meet the Board's Ends Policy E–3, "There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations." The district's goals are further defined in E-3.1, "Provide natural flood protection for residents, businesses, and visitors" and E-3.2, "Reduce potential for flood damages." The 800 miles of creeks are located in five watersheds: Lower Peninsula, West Valley, Guadalupe, Coyote, and Uvas/Llagas. The District administers an asset management program for its flood protection infrastructure. The program includes a schedule for maintenance and rehabilitation to ensure that each facility functions as intended throughout its useful life.

Fifty years of working for flood protection has significantly reduced the intensity and frequency of flooding in Santa Clara County. By 2005 the District had provided flood protection to 93,253 of the 166,526 parcels in the flood plain and another 6,642 have been protected since then.

The voters in Santa Clara County have supported the District's flood protection efforts by approving benefit assessment funding in 1982, 1986, and 1990. Voters approved a special parcel tax in 2000 and 2012 to fund the continuation of the District's flood protection capital improvements, specifically, moving upstream from the completed downstream work or starting new work on creeks that have not had flood protection work.

Lower Peninsula Watershed

Major Capital Improvements Completed

- Adobe Creek from El Camino to West Edith Ave.
- Barron Creek
- Matadero Creek from Palo Alto Flood Basin to Barron Creek
- Stevens Creek from Highway 101 to Homestead Road

Major Capital Improvements Identified in the CIP

- Palo Alto Flood Basin Structure Improvements
- Permanente Creek from S.F. Bay to Foothill Expressway (Safe, Clean Water)
- San Francisquito Creek from S.F. Bay to Searsville Dam (Clean, Safe Creeks/Safe, Clean Water)

West Valley Watershed

Major Capital Improvements Completed

- Calabazas Creek from Guadalupe Slough to Wardell Road
- San Tomas Creek from Southern Pacific Railroad to Cabrillo Avenue
- Saratoga Creek from San Tomas Creek to Lawrence Expressway

Major Capital Improvements Identified in the CIP

- Sunnyvale East and West Channels (Clean, Safe Creeks)

Guadalupe Watershed

Major Capital Improvements Completed

- Alamitos Creek
- Guadalupe River–Lower from Alviso Marina to Interstate 880
- Guadalupe River–Downtown from Interstate 880 to Interstate 280

Major Capital Improvements Identified in the CIP

- Guadalupe River–Upper, Interstate 280 to Blossom Hill Road (Clean, Safe Creeks/Safe, Clean Water)

Coyote Watershed

Major Capital Improvements Completed

- Coyote Creek from S.F. Bay to Montague Expressway
- Lower Penitencia Creek from Coyote Creek to Tasman Drive
- Lower Silver Creek from Coyote Creek to Cunningham Ave. (Reaches 1-6)
- Wrigley Ford Creek

Major Capital Improvements Identified in the CIP

- Berryessa Creek from Calaveras Boulevard to Old Piedmont Road (Clean, Safe Creeks)
- Berryessa Creek from Lower Penitencia Creek to Calaveras Boulevard
- Coyote Creek Montague Expressway to Tully Road (Clean, Safe Creeks/Safe, Clean Water)
- Upper Penitencia Creek from Coyote Creek to Dorel Drive (Safe, Clean Water)

Uvas/Llagas Watershed

Major Capital Improvements Completed

- Llagas Creek–Lower from Pajaro River to Buena Vista Road
- Uvas Creek

Major Capital Improvements Identified in the CIP

- Llagas Creek Capacity Restoration from Buena Vista Road to Pajaro River
- Llagas Creek–Upper, Buena Vista Road to Llagas Road (Clean, Safe Creeks/Safe, Clean Water)

Multiple Watersheds

Major Capital Improvements Identified in the CIP

- San Francisco Bay Shoreline (Safe, Clean Water)
- Watershed Asset Rehabilitation Program

PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to ensure that the new flood protection projects proposed to be added to the Fiscal Year 2019-23 CIP reflect the Board's priorities. The priority criteria used are included in Appendix A.

A financial analysis of the Watershed and Steam Stewardship Fund and Safe, Clean Water Fund, the funding sources for flood protection capital improvements, was conducted to determine if there are limitations to funding all of the projects proposed for the Fiscal Year 2018-22 CIP. Results of the prioritization process and financial analysis are summarized in Appendix B.

Flooding on Coyote Creek caused by severe storm in February 2017 led the District to reevaluate the schedule, level of flood protection, and funding sources for the Coyote Creek Project. A public hearing was held on June 13, 2017 to extend the Coyote Creek project to Tully Road and evaluate a project that would provide protection from a 20- to 25-year flood event. Staff worked with the Board CIP Committee to identify possible funding for construction of this project.

The watersheds have benefited from higher than projected property tax revenue in fiscal years 2013 through 2018. The District will also receive $55 million from DWR to assist with construction of Lower Silver, Lower Berryessa, Upper Berryessa, and Lower Penitencia.

The voter approved Safe, Clean Water program will provide funding for some of the highest priority unfunded projects including:

- Permanente Creek, San Francisco Bay to Foothill Expy.
- San Francisquito Creek, SF Bay to Middlefield Road
- Sunnyvale East & West Channels
- Upper Guadalupe River, I-280 to Blossom Hill Road
- Upper Penitencia Creek, Coyote to Dorel Drive
- Berryessa Creek, Calaveras Blvd. to I-680
- Coyote Creek, Montague Expy. to I-280 (Partial funding)
- Upper Llagas Creek, Buena Vista Rd. to Llagas Rd.
- San Francisco Bay Shoreline - Design and Partial Construction of EIA 11 and Planning for other EIAs

An implementation schedule for the Safe, Clean Water projects is available in Appendix E.

Flood Protection Capital Improvements

Delays in the federal funding for many of the USACE projects have extended the schedules beyond the dates committed by the District. Therefore, the District is evaluating the option of proceeding with the local funding option on several of these projects. Construction on a number of flood protection projects have been delayed due to either Federal funding issues or delays in receiving environmental permits.

The following high priority flood protection projects, unfunded or partially funded, are of major concern to meet the Board's Ends Policy E–3, "There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations."

Partially Funded and Unfunded CIP Projects

- Coyote Creek, Montague Expressway to Tully Road
- San Francisco Bay Shoreline Project - except EIA 11 (Design and Construction is unfunded)
- San Francisquito Creek 100 year flood protection upstream of Highway 101
- Upper Berryessa Creek, I-680 to Old Piedmont Road (unfunded; $20 million)
- Upper Llagas, Reach 14
- Upper Penitencia Creek, Coyote Creek to Dorel Drive (USACE funding is unlikely)

Aerial view of the construction of the McKelvey Park detention basin in Mountain View on the Permanente Creek Flood Protection Project.

Flood Protection Capital Improvements

The following table is a project funding schedule for flood protection capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

Flood Protection Capital Improvements ($K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
	LOWER PENINSULA WATERSHED										
10394001	Palo Alto Flood Basin Tide Gate Structure Improvements	1,200	458	763	1,317	1,999	7,333	119	-	-	12,426
10244001s	Permanente Creek, SF Bay to Foothill Expressway	74,291	16,909	178	5,281	-	-	-	-	-	96,481
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam (E5)	45,418	7,338	347	3,111	3,732	6,791	-	-	-	66,390
	WEST VALEY WATERSHED										
26074002	Sunnyvale East and West Channels	26,177	4,820	12,374	-	16,493	11,948	10,580	125	-	70,143
	GUADALUPE WATERSHED										
30114002	Canoas Creek, Rodent Damage Repair	8,517	-	1,092	-	-	-	-	-	-	8,517
26154001s	Guadalupe River–Upper, I-280 to Blossom Hill Road (E8)	109,746	18,294	18,966	6,516	17,528	7,938	3,257	2,693	-	165,972
	COYOTE WATERSHED										
26174041s	Berryessa Creek, Calaveras Boulevard to Interstate 680	54,443	301	12,683	209	-	-	-	-	-	54,953
40174004s	Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd	109,593	-	3,866	17,474	349	2,529	2,623	1,281	65,773	199,622
26174043	Coyote Creek, Montague Expressway to Tully Road (E3)	11,488	760	505	1,752	983	1,067	4,055	3,851	21,056	45,012
40264011	Cunningham Flood Detention Certification	8,287	1,841	-	1,290	235	34	-	-	-	11,687
40334005	Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	9,601	4,815	6,178	1,881	9,861	285	298	212	-	26,953
40264007s	Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	99,061	1,981	1,482	509	311	182	-	-	-	102,044
40324003s	Upper Penitencia Creek, Coyote Creek to Dorel Drive	17,899	1,116	5,342	1,525	-	-	15,491	15,491	14,880	66,402
	UVAS LLAGAS WATERSHED										
50284010	Llagas Creek–Lower, Capacity Restoration, Buena Vista Road to Pajaro River	7,046	-	3,670	-	630	3,187	2,891	125	-	13,879
26174051s	Llagas Creek–Upper, Buena Vista Avenue to Llagas Road	105,942	2,154	19,594	5,240	32,791	19,692	5,550	561	926	172,856
	MULTIPLE WATERSHEDS										
00044026s	San Francisco Bay Shoreline (E7)	26,466	3,473	1,736	6,722	4,071	1,141	716	-	-	42,589
62084001	Watersheds Asset Rehabilitation Program	3,515	11,047	-	9,892	10,384	8,936	9,387	9,740	117,651	180,552
	TOTAL	718,690	75,307	88,776	62,719	99,367	71,063	54,967	34,079	220,286	1,336,478

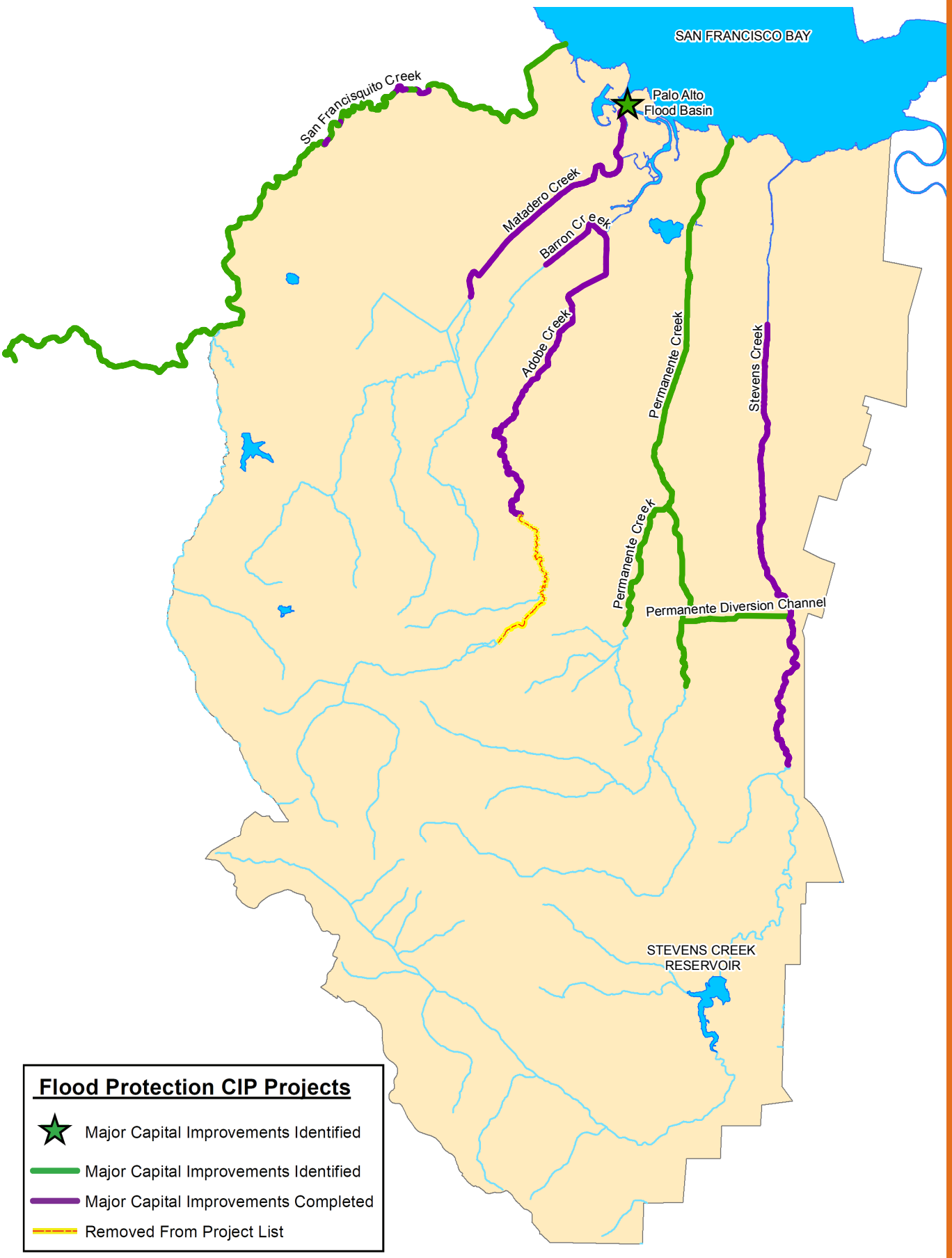
The following table shows funding requirements from each funding source for flood protection capital improvements.

Flood Protection - Funding Sources ($K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
12	Watershed Stream Stewardship Fund	302,469	23,979	22,393	32,363	41,990	29,138	15,318	11,358	183,424	640,039
26	Safe, Clean Water and Natural Flood Protection Fund	416,221	51,328	66,383	30,356	57,377	41,925	39,649	22,721	36,862	696,439
	TOTAL	718,690	75,307	88,776	62,719	99,367	71,063	54,967	34,079	220,286	1,336,478

FY 2017-18 Funds to be reappropriated

Lower Peninsula Watershed



Project	**Palo Alto Flood Basin Tide Gate Structure Improvements**
Program	Flood Protection - Lower Peninsula Watershed
Priority No.	56
Project No.	10394001
District Contact	Ngoc Nguyen nnguyen@valleywater.org

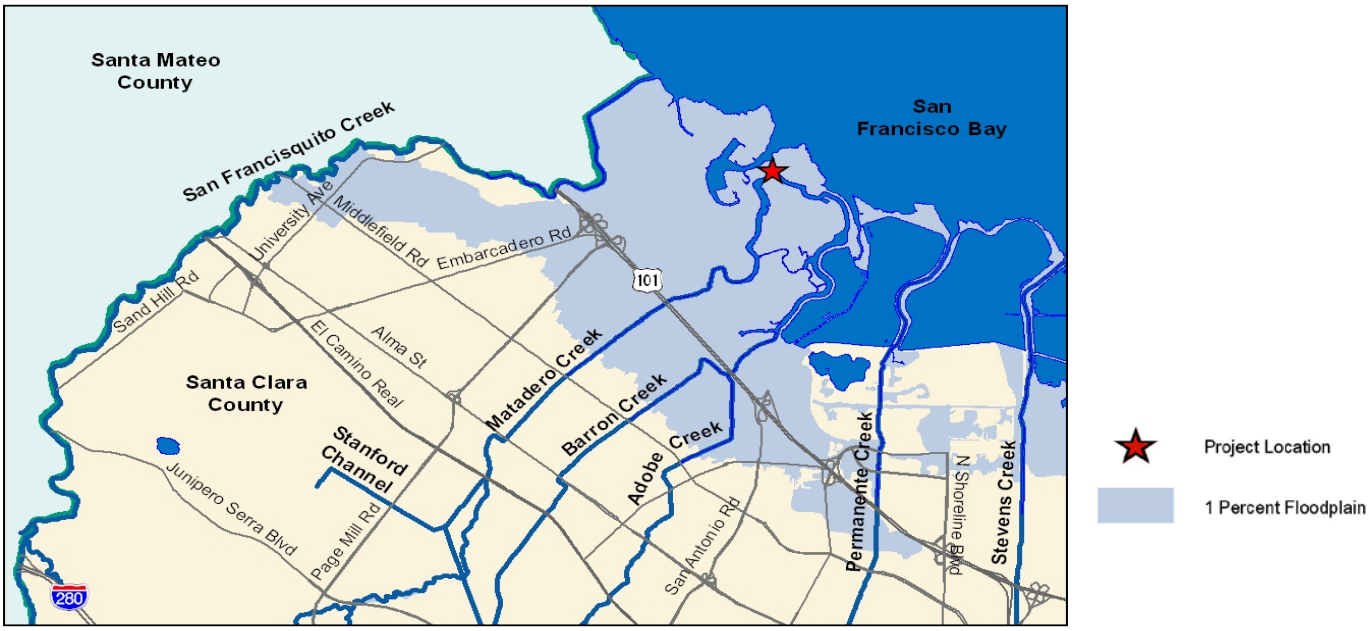
View from the west side of the Palo Alto tide gates facing east

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Palo Alto Flood Basin structure to accomplish the following objectives:

- Replace the existing tide gate structure to improve the functionality of the flood barrier system.
- Reduce the possibility of flooding in lower reaches of Matadero, Adobe, and Barron Creeks.
- Prevent environmental impacts due to submergence of habitat areas within the basin for salt marsh harvest mouse, California clapper rail bird and the black rail bird.
- Prevent impacts due to sea level rise or a 100-year fluvial flood.

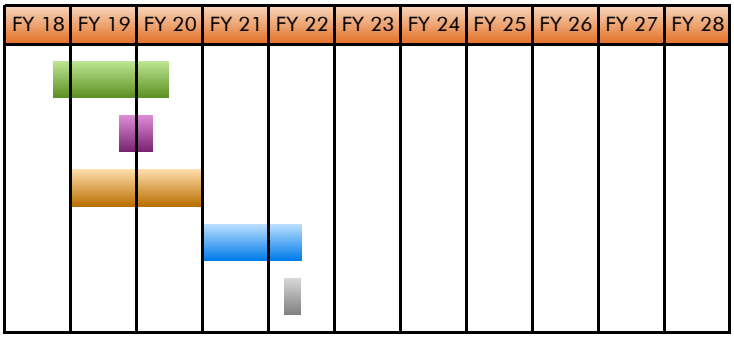
PROJECT LOCATION



SCHEDULE & STATUS

October 2014 to June 2022

Phase	Cost
Plan	1,394
Permits	120
Design	1,856
Construct	8,345
Closeout	10
	11,725



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10394001-Palo Alto Flood Basin Tide Gate Structure Improvements	400	495	2,080	1,850	6,800	100	0	0	11,725
with inflation	400	495	2,080	1,999	7,333	119	0	0	12,427

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
10394001-Palo Alto Flood Basin Tide Gate Structure Improvements	1,200	458	763	1,317	1,999	7,333	119	0	0	12,427

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed and Stream Stewardship Fund	12,427
Other Funding Sources	0
Total	**12,427**

OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the design phase.

USEFUL LIFE: 50 Years

Project	**Permanente Creek, San Francisco Bay to Foothill Expressway**
Program	Flood Protection – Lower Peninsula Watershed
Priority No.	62
Project No.	10244001s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

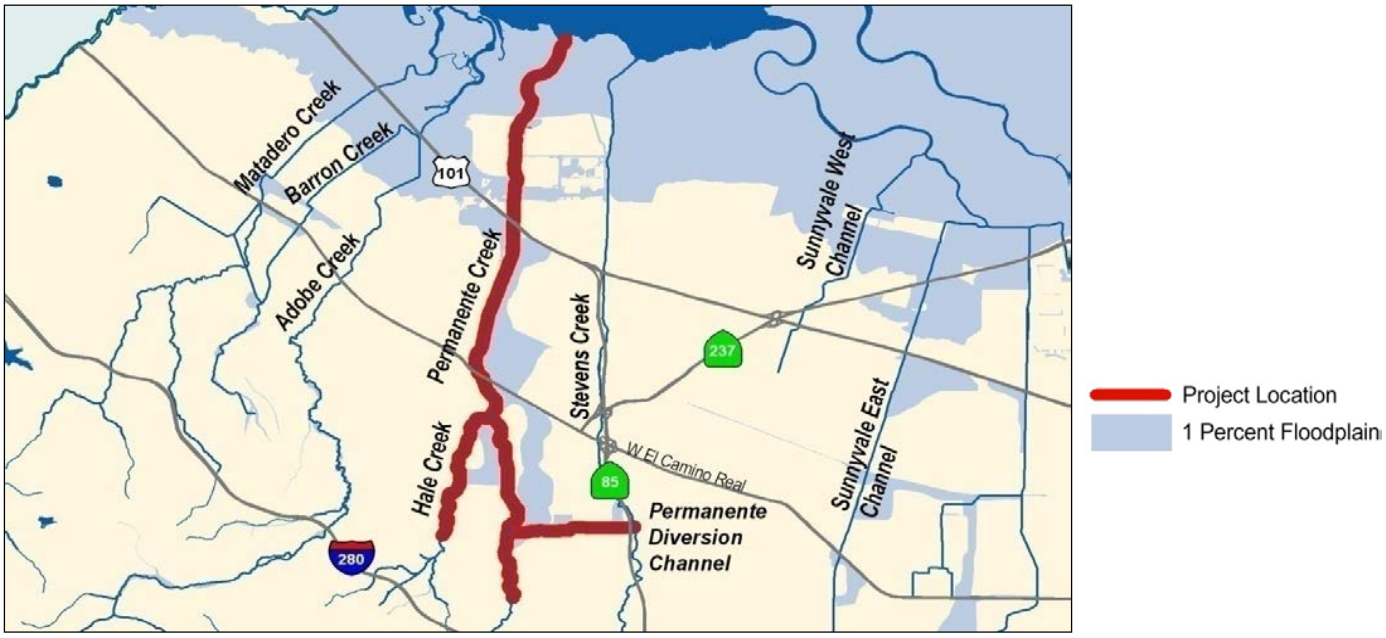
Permanente Creek, looking downstream at the golf course foot bridge

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along 10.6 miles of Permanente Creek, from San Francisco Bay to Foothill Expressway, Hale Creek from Foothill Expressway to its confluence with Permanente Creek, and the diversion structure between Permanente and Stevens Creeks, to accomplish the following objectives:

- Provide flood protection to 1,664 parcels, including Middlefield Road and Central Expressway.
- Reduce erosion and sedimentation, reduce maintenance costs, and improve safety and stability of the failing channel on Permanente Creek from the San Francisco Bay to Foothill Expressway.
- Provide environmental restoration and enhancement benefits, where opportunities exist.
- Provide recreation enhancements, where opportunities exist.
- Provide natural flood protection by taking a multiple-objective approach.

PROJECT LOCATION

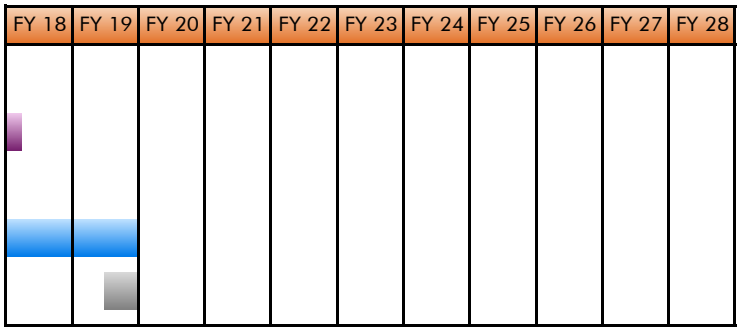


SCHEDULE & STATUS

July 2001 to June 2019

Construction includes multiple contract phases and three years of plant establishment monitoring.

Phase	Cost
Plan	10,048
Permits	3,805
Design	16,126
Construct	66,237
Closeout	50
	96,266



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10244001-Permanente Ck, Bay to Foothill Expwy – Lower Peninsula Fund	17,363	0	0	0	0	0	0	0	17,363
with inflation	17,363	0	0	0	0	0	0	0	17,363
26244001-Permanente Ck, Bay to Foothill Expwy – Clean, Safe Creeks Fund	56,753	16,906	5,281	0	0	0	0	0	78,940
with inflation	56,753	16,906	5,281	0	0	0	0	0	78,940
TOTAL	74,116	16,906	5,281	0	0	0	0	0	96,303
with inflation	74,116	16,906	5,281	0	0	0	0	0	96,303

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
10244001-Permanente Ck, Bay to Foothill Expwy – Lower Peninsula Fund	17,541	0	178	0	0	0	0	0	0	17,541
26244001-Permanente Ck, Bay to Foothill Expwy – Clean, Safe Creeks Fund	56,750	16,909	0	5,281	0	0	0	0	0	78,940
TOTAL	74,291	16,909	178	5,281	0	0	0	0	0	96,481

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds total planned expenditures by approximately $178,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	17,541
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	77,917
City of Mountain View	1,023
Total	96,481

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $100,000 per year, beginning in FY 2020. Increases in operations and maintenance costs include sediment removal at three flood detention sites, and bypass channel inlet and outlet operations and maintenance.

USEFUL LIFE: 30+ Years

Project	**San Francisquito Creek, San Francisco Bay through Searsville Dam**
Program	Flood Protection – Lower Peninsula Watershed
Priority No.	78
Project No.	10284007s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

Upstream face of Pope/Chaucer Street with water surface approximately two feet below the soffit

PROJECT DESCRIPTION

This project provides coordination and support to the San Francisquito Joint Powers Authority, in partnership with the U.S. Army Corps of Engineers, to complete planning and design documents for an approved project alternative on San Francisquito Creek, from San Francisco Bay through Searsville Dam. This project will accomplish the following objectives:

- Provide flood protection.
- Reduce bank erosion and sedimentation-related impacts along San Francisquito Creek.
- Avoid potential adverse impacts on fish and wildlife habitats.
- Minimize impacts to the creek's environmental resources and restore the riparian corridor where feasible.

The San Francisquito construction project will provide 100-year flood protection from San Francisco Bay to Highway 101 and replace two bridges between Highway 101 and Middlefield Road.

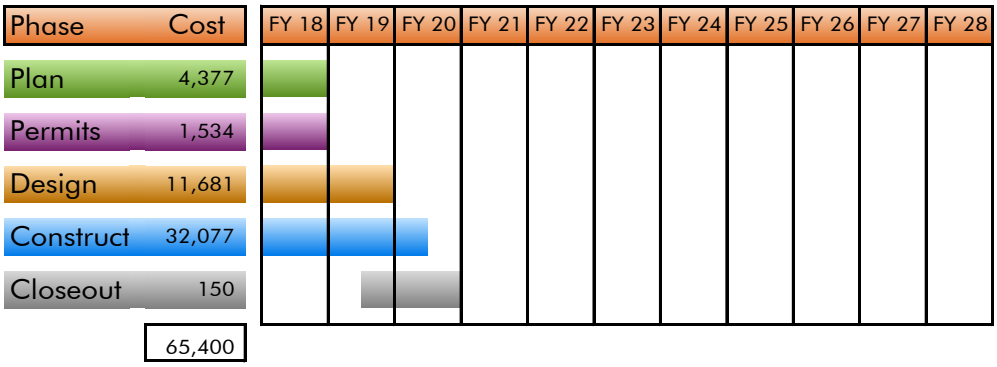
This project is accounted for in the following job numbers: (10284007 & 10284008 are Completed)

- 26284001 – SF Bay through Searsville Dam
- 26284002 – Construction - San Francisco Bay to Middlefield Rd.

PROJECT LOCATION

SCHEDULE & STATUS

June 2003 to June 2020



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10284007-San Francisquito Ck, Bay-Searsville Dan	4,064	0	0	0	0	0	0	0	4,064
with inflation	4,064	0	0	0	0	0	0	0	4,064
10284008-San Francisquito Ck, Early Implementation	1,614	0	0	0	0	0	0	0	1,614
with inflation	1,614	0	0	0	0	0	0	0	1,614
26284001-San Francisquito Ck, Bay-Searsville Dan	6,329	426	0	0	0	0	0	0	6,755
with inflation	6,329	426	0	0	0	0	0	0	6,755
26284002-San Francisquito Ck - Construction - SF Bay to Middlefield Rd.	32,520	7,456	3,431	3,475	6,085	0	0	0	52,967
with inflation	32,520	7,456	3,431	3,732	6,791	0	0	0	53,931
TOTAL	**44,527**	**7,882**	**3,431**	**3,475**	**6,085**	**0**	**0**	**0**	**65,400**
with inflation	**44,527**	**7,882**	**3,431**	**3,732**	**6,791**	**0**	**0**	**0**	**66,364**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
10284007-San Francisquito Ck, Bay-Searsville Dan	4,064	0	0	0	0	0	0	0	0	4,064
10284008-San Francisquito Ck, Early Implementation	1,614	0	0	0	0	0	0	0	0	1,614
26284001-San Francisquito Ck, Bay-Searsville Dan	6,782	0	27	0	0	0	0	0	0	6,782
26284002-San Francisquito Ck - Construction - SF Bay to Middlefield Rd.	32,958	7,338	320	3,111	3,732	6,791	0	0	0	53,931
TOTAL	**45,418**	**7,338**	**347**	**3,111**	**3,732**	**6,791**	**0**	**0**	**0**	**66,391**

Adjusted Budget includes adopted budget plus approved budget adjustments. Funding exceeds planned expenditures by approximately $27,000. Excess funding will be returned to reserves upon completion of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	5,678
SCVWD Safe, Clean Water and Natural Flood Protection Fund	56,193
JPA Member Agencies	4,520
Total	**66,391**
San Francisquito Joint Powers Authority (DWR)	8,000
U.S. Army Corps of Engineers - In-kind Services	3,000
County of San Mateo - In-kind Services	1,500

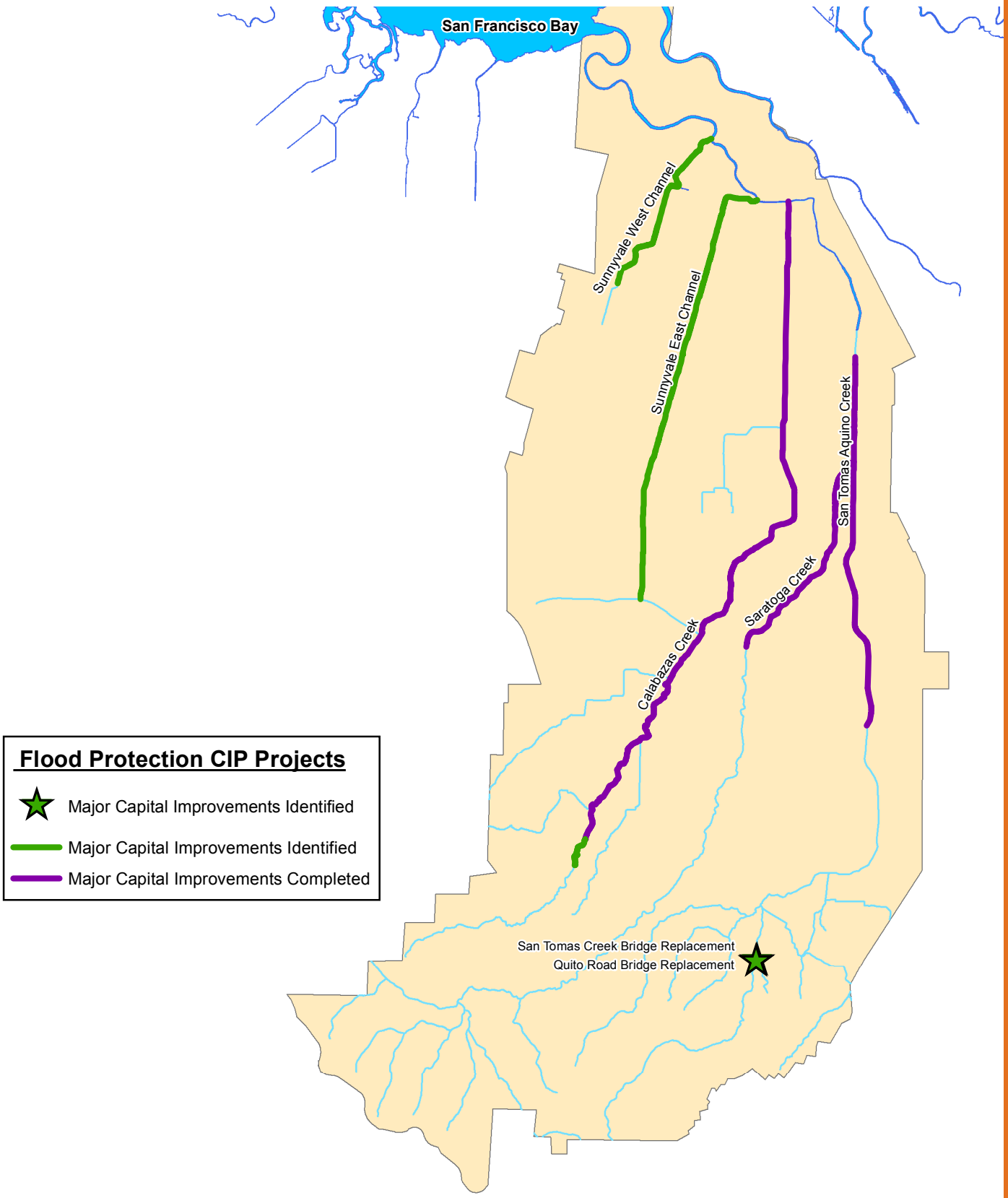
County and Corps participation are for Feasibility Study activities only. Additional funding will be negotiated during subsequent phases.

OPERATING COST IMPACTS

No operating budget impacts are expected from the construction of this project.

USEFUL LIFE: Not Available

West Valley Watershed



Project	**Sunnyvale East and West Channels Improvement**
Program	Flood Protection – West Valley Watershed
Priority No.	65
Project No.	26074002
District Contact	Katherine Oven koven@valleywater.org

Sunnyvale West Channel looking upstream from Java Drive

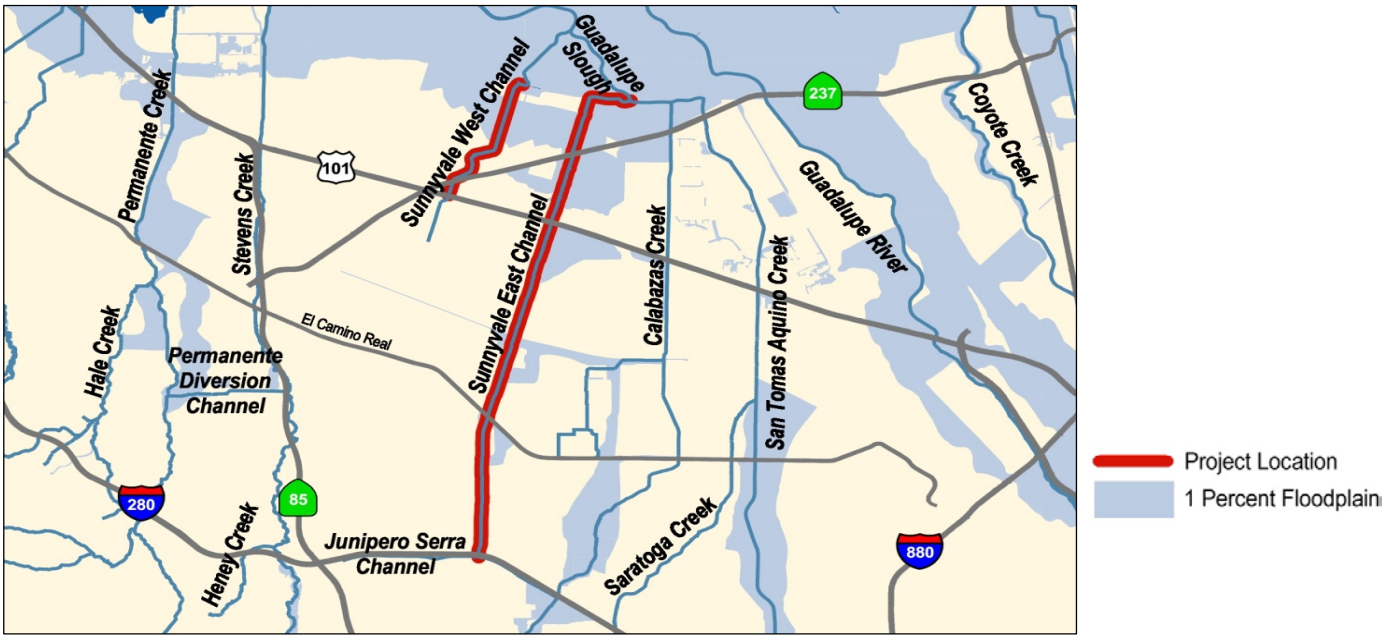
PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to approximately 6.4 miles of the Sunnyvale East Channel, from Guadalupe Slough to Interstate 280, and 2.3 miles of the Sunnyvale West Channel, from Guadalupe Slough to Highway 101, to accomplish the following objectives:

- Provide flood protection to over 1,600 parcels along Sunnyvale East and West Channels.
- Provide environmental enhancement benefits where opportunities exist.
- Provide recreation enhancements where opportunities exist.
- Reduce erosion, sedimentation, and maintenance costs.
- Protect fish and wildlife habitat.

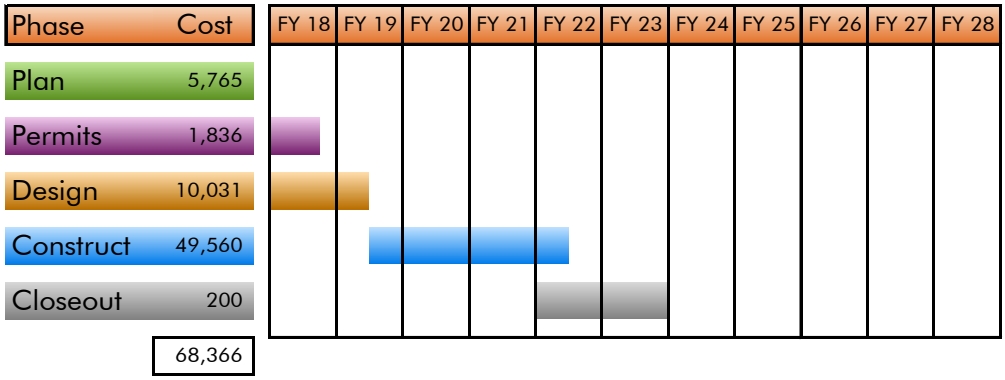
The Sunnyvale East and Sunnyvale West Channels were originally identified as separate projects. In order to improve efficiency by combining efforts, the planning, design and construction phases for both projects will be performed as a single effort.

PROJECT LOCATION



SCHEDULE & STATUS

March 2006 to June 2023



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26074002-Sunnyvale East and West Channels Improvement	16,477	2,146	9,743	18,400	11,400	10,100	100	0	68,366
with inflation	16,477	2,146	9,743	19,124	11,948	10,580	125	0	70,142

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26074002-Sunnyvale East and West Channels Improvement	26,177	4,820	12,374	0	16,493	11,948	10,580	125	0	70,142

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

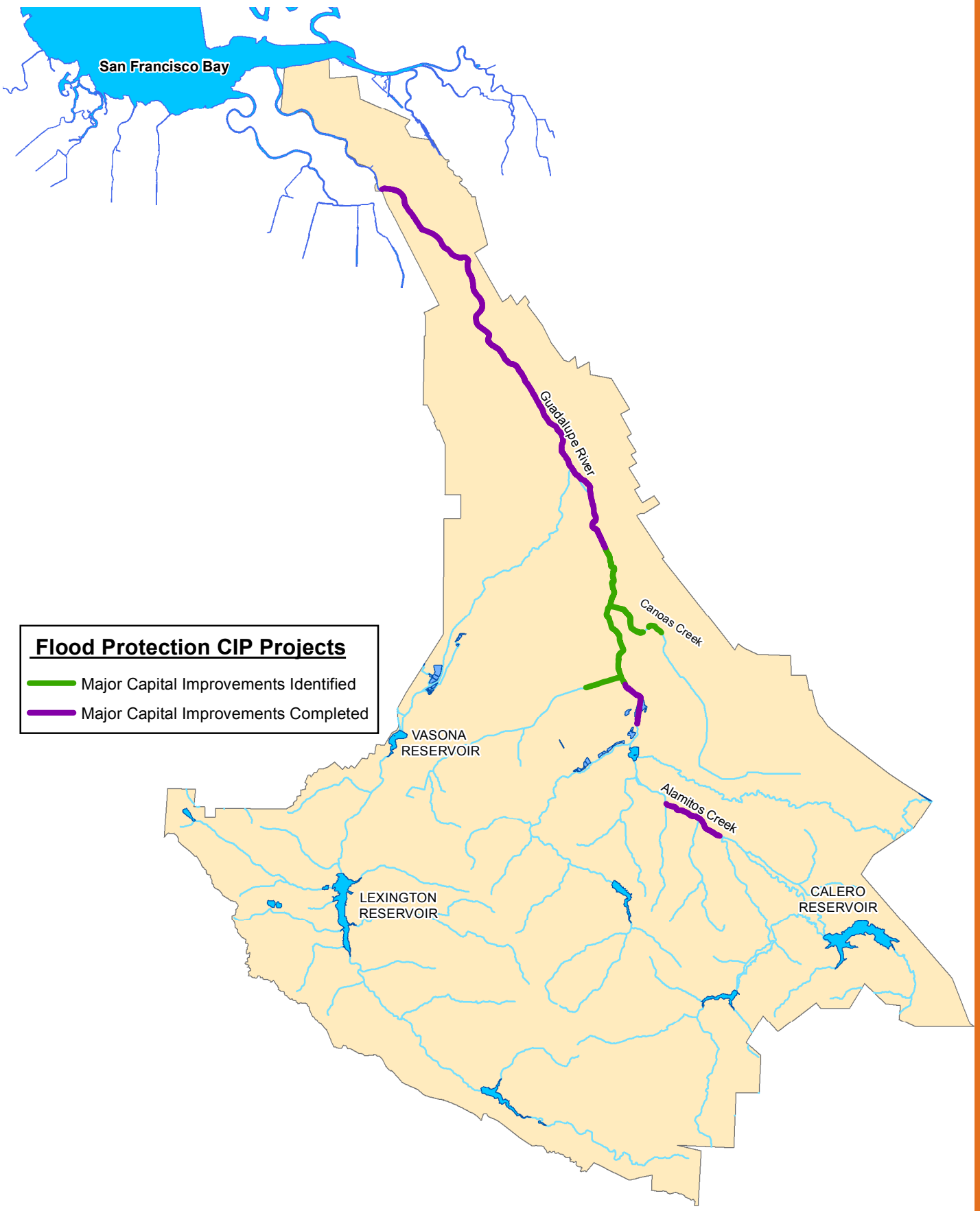
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	70,142
Other Funding Source	0
Total	70,142

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $50,000 per year, beginning in FY 2023. Increases in operations and maintenance costs include graffiti removal, mowing and weed control under the levees, and for operation and maintenance of the Pond A4 detention basin.

USEFUL LIFE: 30+ Years

Guadalupe Watershed



Project	**Canoas Creek Rodent Damage Repair**
Program	Flood Protection - Guadalupe Watershed
Priority No.	60
Project No.	30114002
District Contact	Ngoc Nguyen nnguyen@valleywater.org

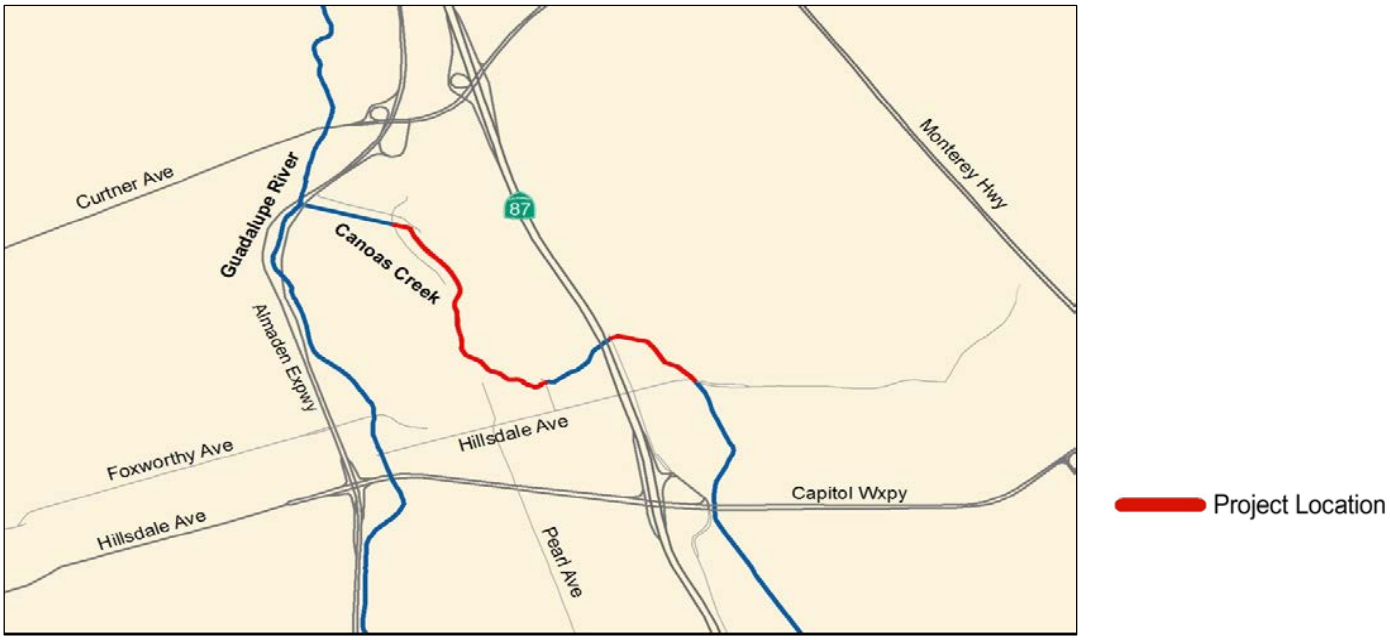
View of damage caused by burrowing animlas along Canoas Creek in the Guadalupe Watershed

PROJECT DESCRIPTION

This project plans, designs, and constructs repairs to Canoas Creek to accomplish the following objectives:

- Repair approximately one mile of damaged creek's levee and embankment.
- Reduce frequent maintenance costs associated with routine bank erosion repair projects.
- Reduce the risk of levee/bank slope failure due to damage caused from burrowing animals.

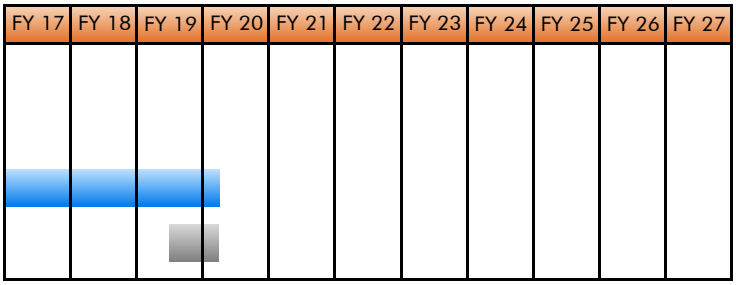
PROJECT LOCATION



SCHEDULE & STATUS

May 2015 to June 2020

Phase	Cost
Plan	33
Design	584
Construct	6,235
Closeout	5
	7,484



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
30114002-Canoas Creek Rodent Damage Repair	7,396	29	30	29	0	0	0	0	7,484
with inflation	7,396	29	30	32	0	0	0	0	7,487

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
30114002-Canoas Creek Rodent Damage Repair	8,517	0	1,092	0	0	0	0	0	0	8,517

Adjusted Budget includes adopted budget plus approved budget adjustments. Total allocated funding exceeds planned expenditures by approximately $1,030,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

Watershed Stream Stewardship	8,517
Other Funding Sources	0
Total	8,517

OPERATING COST IMPACTS

Operating cost impacts will be determined at the end of the construction phase.

USEFUL LIFE: 30+ Years

Project	**Guadalupe River–Upper, Interstate 280 to Blossom Hill Road**
Program	Flood Protection – Guadalupe Watershed
Priority No.	68
Project No.	26154001s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

Flooding from Guadalupe River on Willow Street near the Southern Pacific Railroad Bridge

PROJECT DESCRIPTION

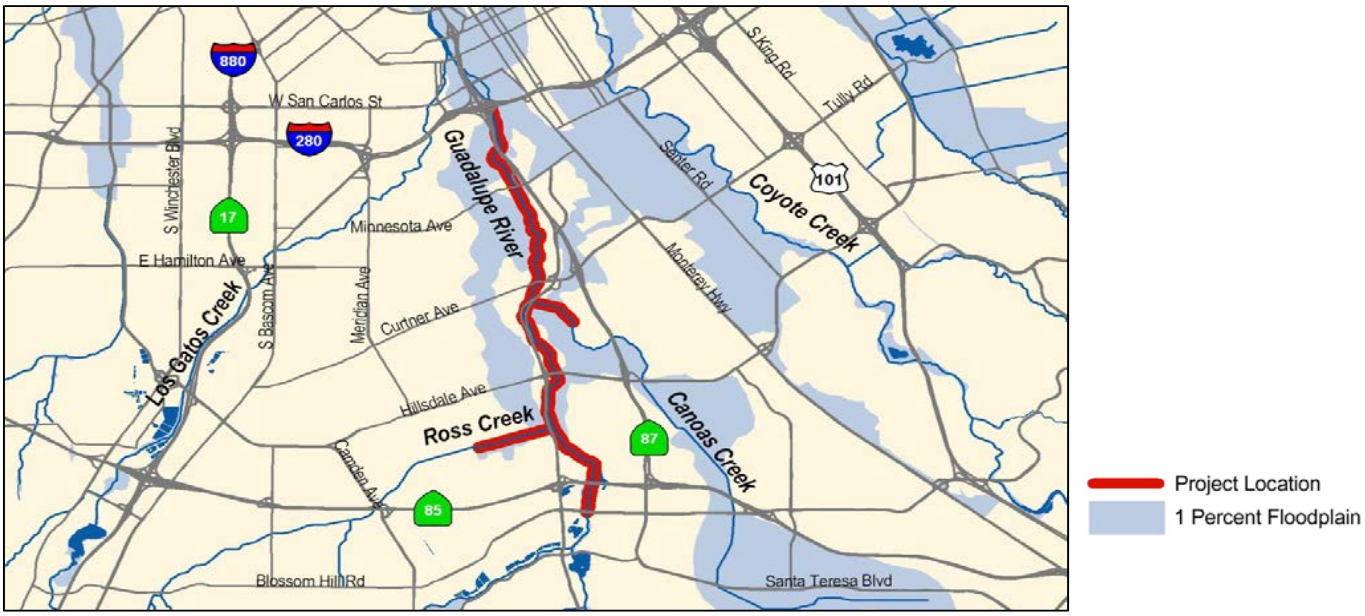
This project partners with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements along approximately 6 miles of the Guadalupe River, from Interstate 280 to Blossom Hill Road, to accomplish the following objectives:

- Provide one-percent flood protection to nearly 7,000 parcels along the Guadalupe River, from I-280 to Blossom Hill Road, including portions of Ross Creek and Canoas Creek.
- Provide long-term net gains of 15 acres in riparian forest acreage, quality, and continuity of wildlife habitat, and conditions favoring Chinook salmon and steelhead trout.
- Provide access to an additional 19 miles of suitable upstream spawning and rearing habitat, which would result in significant long-term beneficial impacts on fisheries resources.
- Coordinate with the City of San Jose and the community to establish a continuous maintenance road suitable for trail development between Interstate 280 and Los Alamitos Creek.
- Improve water quality by reducing bank erosion and sedimentation-related impacts along the river and tributaries.
- Address and resolve permit coordination activities and watershed integration issues through the Guadalupe Watershed Integration Working Group.

This project is accounted for in the following job numbers:

- 26154001 Fish Passage Modification (Completed)
- 26154002 I-280 to Southern Pacific Railroad Bridge (Reach 6)
- 26154003 Southern Pacific Railroad Bridge to Blossom Hill Road (Reaches 7-12)

PROJECT LOCATION

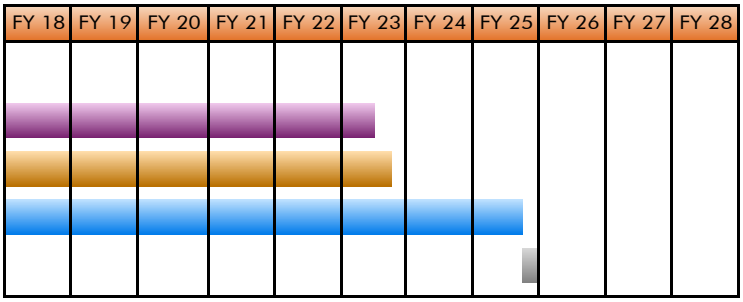


SCHEDULE & STATUS

July 2001 to June 2025

Planning phase is complete. Design and construction of eight individual reaches are being done sequentially.

Phase	Cost
Plan	9,009
Permits	2,501
Design	85,333
Construct	66,476
Closeout	167
	163,606



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**Future**	
26154001-Guadalupe Rv—Upr, Fish Passage Mods	2,651	0	0	0	0	0	0	0	2,651
with inflation	2,651	0	0	0	0	0	0	0	2,651
26154002-Guadalupe Rv—Upr, I-280 to SPRR (R6)	32,409	926	829	1,300	1,270	0	30	0	36,764
with inflation	32,409	926	829	1,420	1,415	0	37	0	37,036
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	41,207	23,994	24,198	15,585	5,855	2,995	2,470	0	116,304
with inflation	41,207	23,994	24,198	16,563	6,523	3,257	2,656	0	118,397
Actuals in closed project numbers	7,887	0	0	0	0	0	0	0	7,887
with inflation	7,887	0	0	0	0	0	0	0	7,887
TOTAL	**84,154**	**24,920**	**25,027**	**16,885**	**7,125**	**2,995**	**2,500**	**0**	**163,606**
with inflation	**84,154**	**24,920**	**25,027**	**17,982**	**7,938**	**3,257**	**2,693**	**0**	**165,972**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	**FY17**	**FY18**		**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**Future**	
26154001-Guadalupe Rv—Upr, Fish Passage Mods	2,651	0	0	0	0	0	0	0	0	2,651
26154002-Guadalupe Rv—Upr, I-280 to SPRR (R6)	34,619	0	1,284	0	965	1,415	0	37	0	37,036
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	64,589	18,294	17,682	6,516	16,563	6,523	3,257	2,656	0	118,397
Actuals in closed project numbers	7,887	0	0	0	0	0	0	0	0	7,887
TOTAL	**109,746**	**18,294**	**18,966**	**6,516**	**17,527**	**7,938**	**3,257**	**2,693**	**0**	**165,972**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

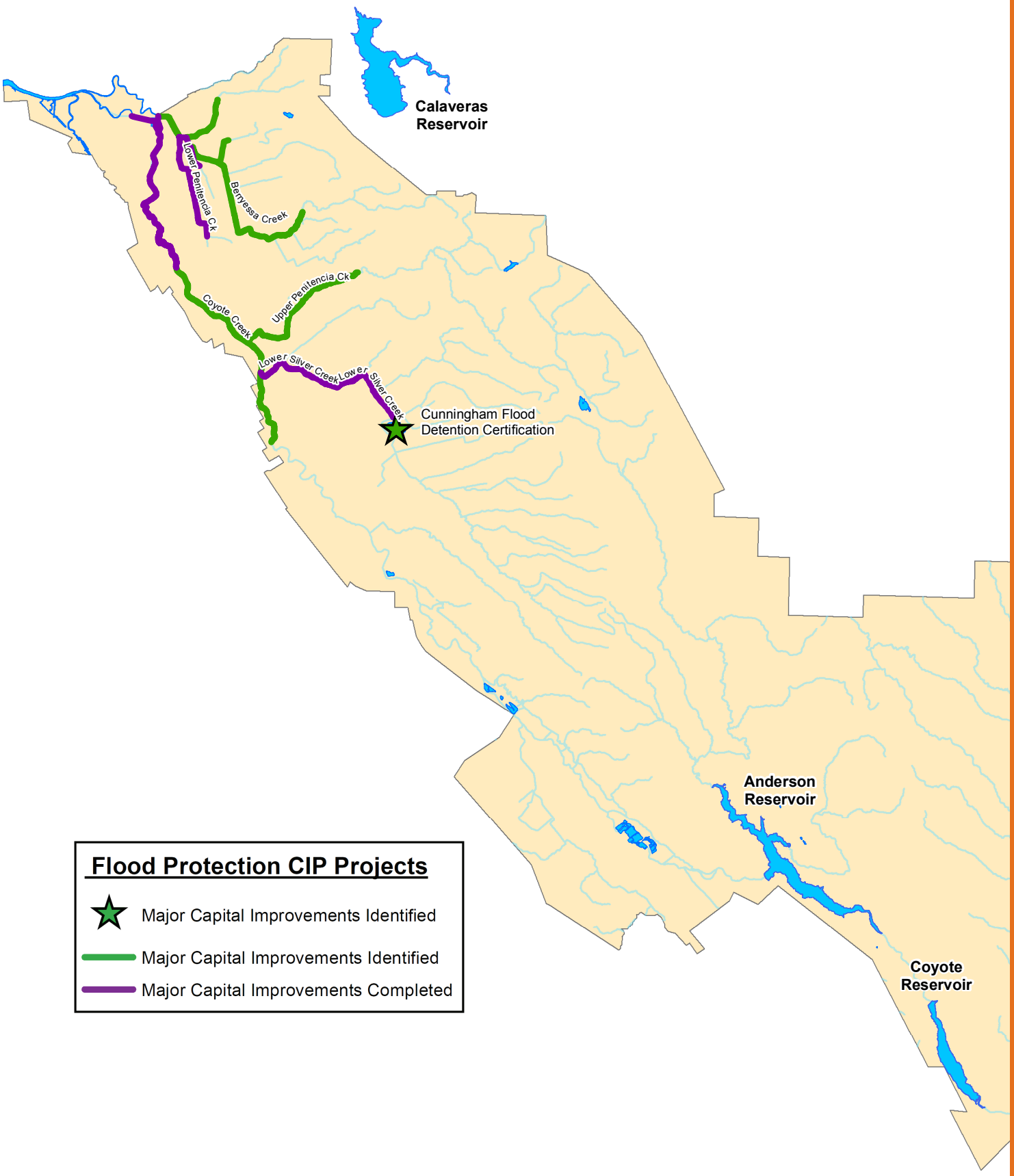
SCVWD Watershed Stream Stewardship Fund	12,000
SCVWD Safe, Clean Water and Natural Flood	114,307
State of California	35,074
City of San Jose	4,591
Total	**165,972**
U.S. Army Corps of Engineers - In-kind Services	188,000

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $480,000 per year, beginning in FY 2025, for mitigation and monitoring labor and equipment, implementation of adaptive management measures, and operations and maintenance in accordance with the Corps Operations and Maintenance Manual.

USEFUL LIFE: 30+ Years

Coyote Watershed



Project	**Berryessa Creek, Calaveras Boulevard to Interstate 680**
Program	Flood Protection – Coyote Watershed
Priority No.	76
Project No.	26174041s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

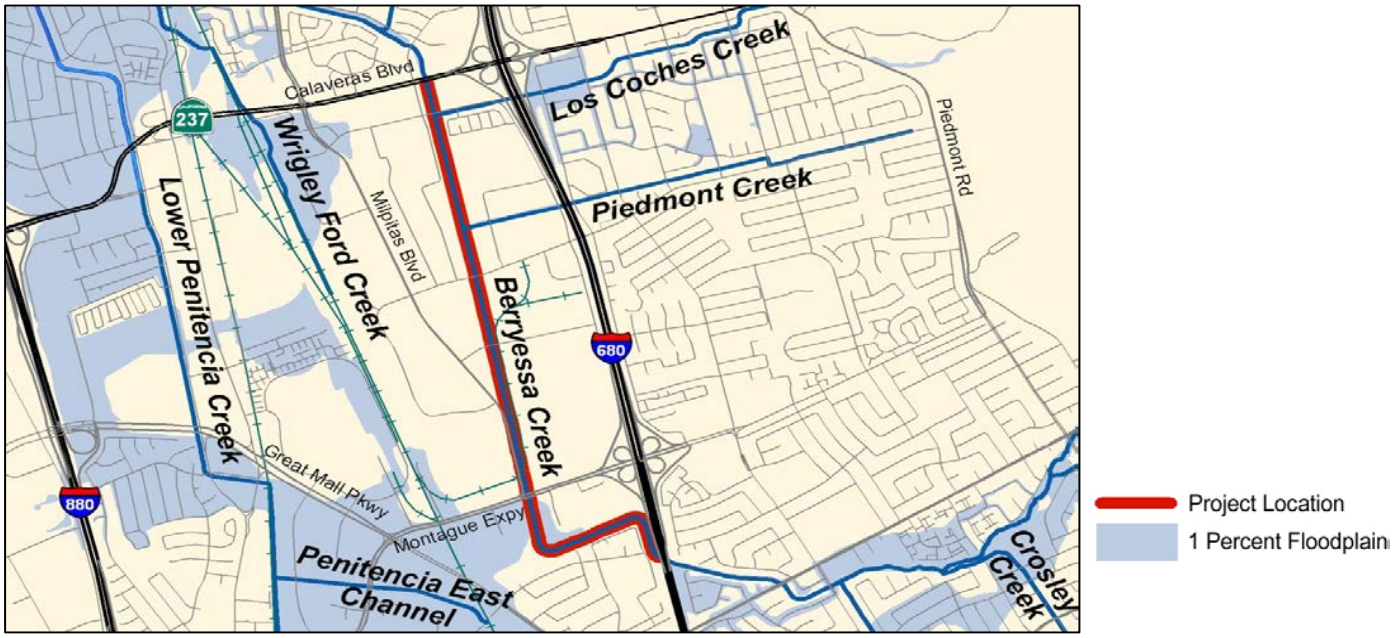
Berryessa Creek near flood stage at Piedmont Road in San Jose

PROJECT DESCRIPTION

This project partners with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements along approximately 2 miles of Berryessa Creek, from Calaveras Boulevard to Interstate 680, to accomplish the following objectives:

- Provide one-percent flood protection to more than 1,100 homes, businesses, and public buildings.
- Reduce sedimentation and maintenance requirements.
- Mitigate for project impacts.
- Improve stream habitat values.
- Coordinate with the cities of San Jose and Milpitas, and the community to establish a continuous maintenance road suitable for trail development along the Berryessa Creek project.
- Obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA).
- Incorporate the District's Clean, Safe Creeks and Natural Flood Protection Program Objectives.

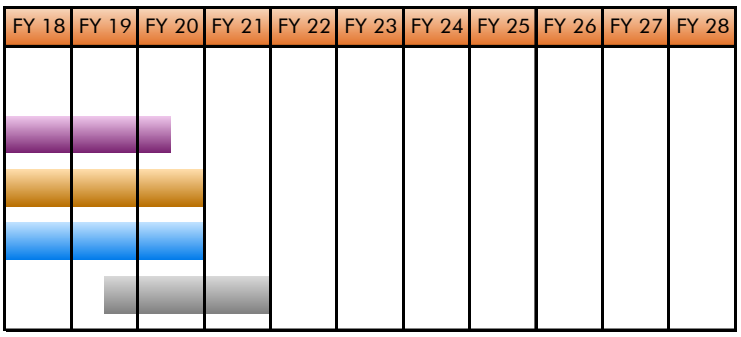
PROJECT LOCATION



SCHEDULE & STATUS

January 2000 to March 2021

Phase	Cost
Plan	8,321
Permits	770
Design	11,885
Construct	26,824
Closeout	150
	48,231



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26174041-Berryessa Creek, Corps Coordination	20,651	2,332	5,761	200	0	0	0	0	28,944
with inflation	20,651	2,332	5,761	218	0	0	0	0	28,962
26174042-Berryessa Creek, LERRDs	17,428	1,650	209	0	0	0	0	0	19,287
with inflation	17,428	1,650	209	0	0	0	0	0	19,287
TOTAL	**38,079**	**3,982**	**5,970**	**200**	**0**	**0**	**0**	**0**	**48,231**
with inflation	**38,079**	**3,982**	**5,970**	**218**	**0**	**0**	**0**	**0**	**48,249**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26174041-Berryessa Creek, Corps Coordination	35,666	0	12,683	0	0	0	0	0	0	35,666
26174042-Berryessa Creek, LERRDs	18,777	301	0	209	0	0	0	0	0	19,287
TOTAL	**54,443**	**301**	**12,683**	**209**	**0**	**0**	**0**	**0**	**0**	**54,953**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately $6,704,000. Excess funds will be returned to Fund Reserves at the end of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	19,353
State of California	25,600
Department of Water Resources (Prop 1E)	10,000
Total	**54,953**
U.S. Army Corps of Engineers - In-kind Services	13,600

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $80,000 per year, beginning in FY 2022, to maintain approximately 2 miles of new levees and flood walls, and for activities such as vegetation spraying and graffiti removal.

USEFUL LIFE: 30+ Years

Project	**Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard**
Program	Flood Protection – Coyote Watershed
Priority No.	68
Project No.	40174004s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

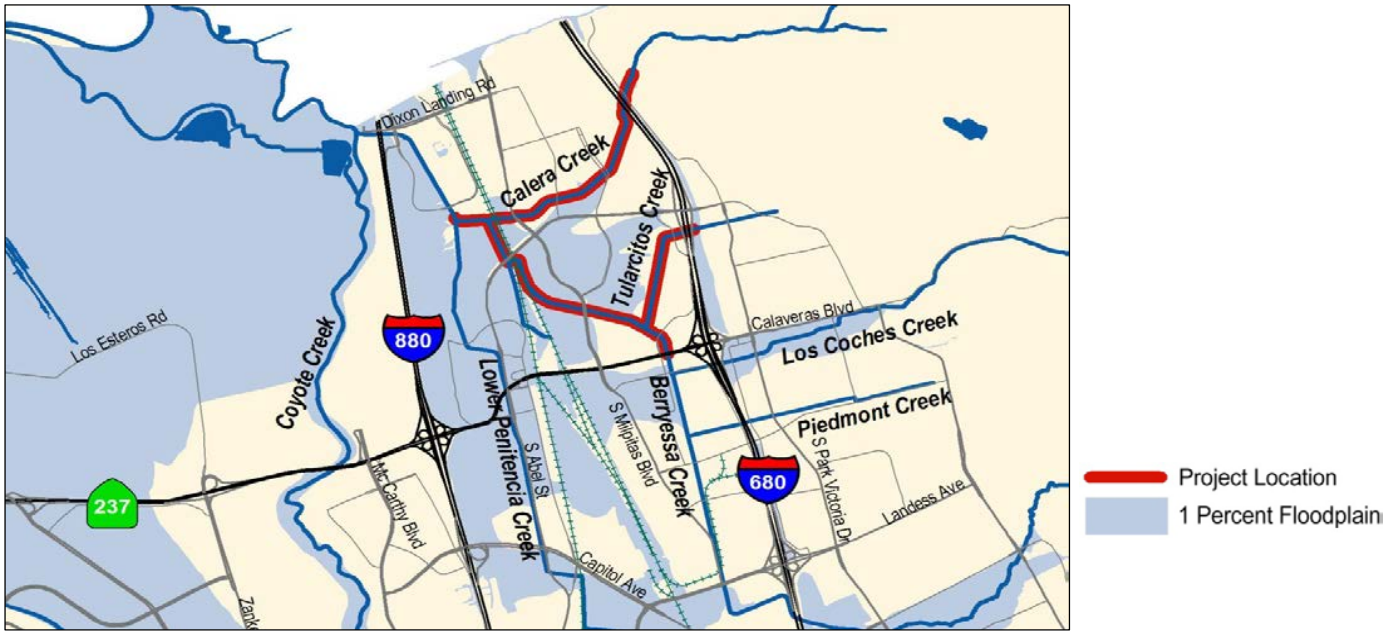
Berryessa Creek upstream of the confluence with Lower Penitencia Creek

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along approximately 3 miles of Berryessa Creek and its tributaries, from the confluence with Lower Penitencia Creek to Calaveras Boulevard (Phase 1 and 2) and both Calera and Tularcitos Creeks (Phase 3), to accomplish the following objectives:

- Provide one-percent flood protection to 1,823 homes, businesses, and public buildings in the surrounding area.
- Improve the structural integrity of the levees.
- Improve maintenance access and safety for District staff.
- Identify opportunities to integrate recreation inputs consistent with the City of Milpitas' Trail Master Plan.
- Obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA).
- Incorporate the District's Clean, Safe Creeks and Natural Flood Protection (NFP) Program Objectives.

PROJECT LOCATION

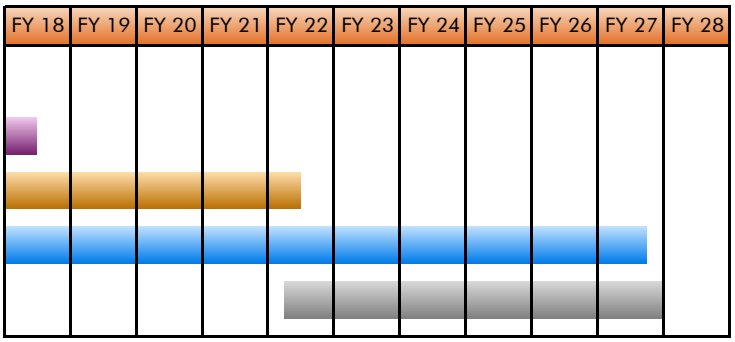


SCHEDULE & STATUS

March 2001 to June 2027

Planning phase is complete. Construction includes three phases and three years of plant establishment monitoring.

Phase	Cost
Plan	8,333
Permits	2,568
Design	13,914
Construct	156,718
Closeout	69
	182,363



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	48,895	70	73	70	70	70	0	0	49,248
with inflation	48,895	70	73	76	80	83	0	0	49,278
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	50,475	6,287	19,114	320	320	350	0	0	76,866
with inflation	50,475	6,287	19,114	349	365	417	0	0	77,008
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	1,925	1,850	1,810	50,664	56,249
with inflation	0	0	0	0	2,164	2,206	1,281	65,774	71,426
TOTAL	**99,370**	**6,357**	**19,187**	**390**	**2,315**	**2,270**	**1,810**	**50,664**	**182,363**
with inflation	**99,370**	**6,357**	**19,187**	**426**	**2,609**	**2,707**	**1,281**	**65,774**	**197,711**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	51,191	0	2,226	0	0	0	0	0	0	51,191
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	58,402	0	1,640	17,474	349	365	417	0	0	77,008
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	0	2,164	2,206	1,281	65,774	71,426
TOTAL	**109,593**	**0**	**3,866**	**17,474**	**349**	**2,529**	**2,624**	**1,281**	**65,774**	**199,625**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately $1,913,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	184,611
Department of Water Resources (Prop 1E)	15,014
Total	**199,625**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase annual operating costs by approximately $70,000 per year. Operating costs will increase with completion of construction of each of three phases: beginning with a $35,000 increase in FY 2018 (one year after completion of Phase 1), increasing to $45,000 in FY 2023 (one year after completion of Phase 2), and finally increasing to $70,000 in FY 2028 (one year after completion of Phase 3). These costs will be for increased maintenance activities such as sediment removal, vegetation management, levee maintenance, graffiti abatement, and trash & debris cleanup.

USEFUL LIFE: 30+ Years

Project	**Coyote Creek, Montague Expressway to Tully Road**
Program	Flood Protection – Coyote Watershed
Priority No.	62
Project No.	26174043
District Contact	Vincent Gin vgin@valleywater.org

Flooding from Coyote Creek on 17th Street near Downtown San Jose in January 1997

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along approximately 9 miles of Coyote Creek, from Montague Expressway to Tully Road, to accomplish the following objectives:

- Complete planning and design for flood protection of 600 businesses and homes from a 20-25 year flood event for Coyote Creek from Montague Expwy to Tully Road.
- Improve water quality, enhance stream habitat, and provide recreational opportunities.
- Incorporate revegetation and aesthetic elements of the Coyote Creek park chain.
- Minimize long-term maintenance needs.

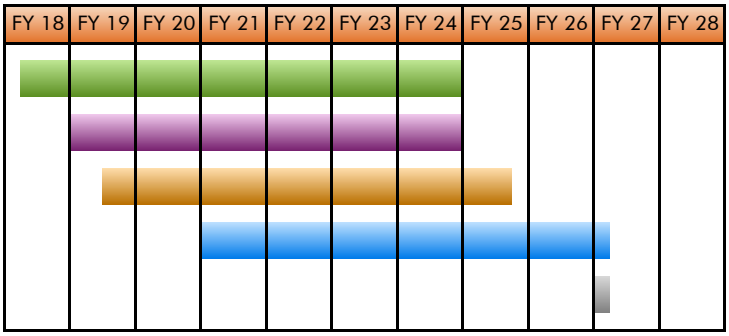
PROJECT LOCATION

Project Location

SCHEDULE & STATUS

September 2002 to March 2026

Phase	Cost
Plan	8,661
Permits	1,260
Design	11,163
Construct	18,723
Closeout	206
	40,090



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26174043-Coyote Creek, Montague Expressway to Tully Road	10,983	760	2,257	900	935	3,400	3,090	17,765	40,090
with inflation	10,983	760	2,257	983	1,067	4,055	3,851	21,055	45,010

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26174043-Coyote Creek, Montague Expressway to Tully Road	11,488	760	505	1,752	983	1,067	4,055	3,851	21,055	45,010

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	45,010
Other Funding Source	0
Total	**45,010**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $100,000 per year, beginning in FY 2027. Currently the District has limited and sporadic property rights within the project limits along the creek, and ongoing maintenance costs are relatively small. Project implementation may include acquisition of continuous right of way for construction and future operations and maintenance.

USEFUL LIFE: 30+ Years

Project	**Cunningham Flood Detention Certification**
Program	Flood Protection – Coyote Watershed
Priority No.	83
Project No.	40264011
District Contact	Ngoc Nguyen nnguyen@valleywater.org

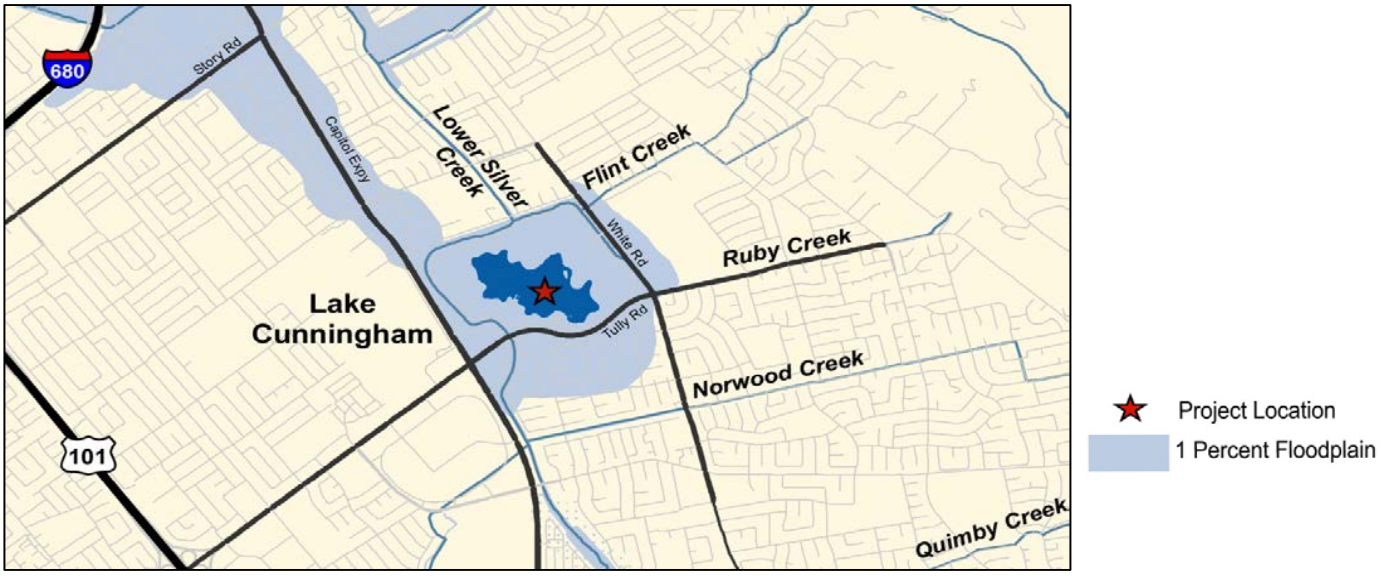
Flooding from Lower Silver Creek in February 1969 at the future site of Lake Cunningham Regional Park

PROJECT DESCRIPTION

This project plans, designs, and constructs final improvements at Lake Cunningham Regional Park (Park) to ensure the site operates as a flood detention facility in accordance with the 1978 agreement with the City of San Jose (City) and to ensure the Lower Silver Creek Project (LSC Project) improvements downstream of Cunningham Avenue function as designed. This project will accomplish the following objectives:

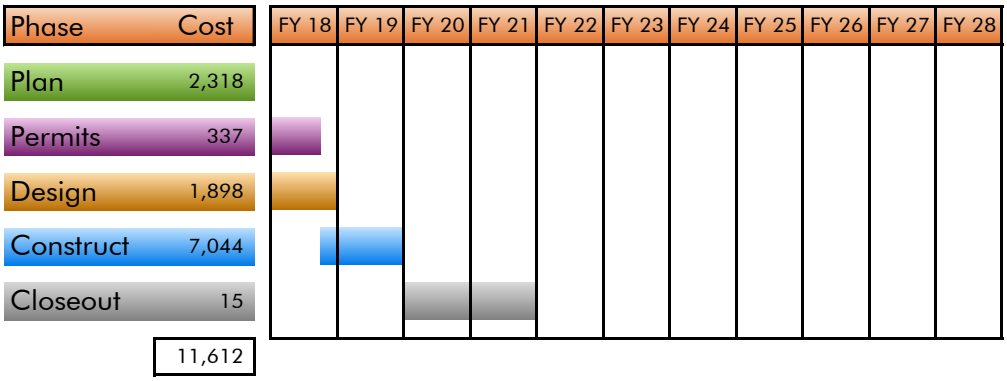
- Validate that the flood detention facility can attenuate the volume of water associated with 2,249 cfs below the park land elevation as stipulated in the 1978 Joint Use Agreement between the City and the District.
- Obtain Federal Emergency Management Agency (FEMA) certification of the flood detention facility and Lower Silver Creek improvements north of the Park to revise the applicable flood insurance rate maps in the Lower Silver Creek 1-percent floodplain near the north of the Park.
- Update the 1978 Joint Use Agreement between the City and the District to meet the flood detention facility's validated condition.

PROJECT LOCATION



SCHEDULE & STATUS

August 1999 to June 2021



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40264011-Cunningham Flood Detention Certification	3,722	6,406	1,290	215	30	0	0	0	11,663
with inflation	3,722	6,406	1,290	235	34	0	0	0	11,687

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
40264011-Cunningham Flood Detention Certification	8,287	1,841	0	1,290	235	34	0	0	0	11,687

Adjusted Budget includes adopted budget plus a planned budget adjustment of $167,000.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	6,387
California Department of Water Resources	1,000
Natural Resource Conservation Service	4,300
Total	11,687

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operations costs. The project is within District jurisdiction and it is designed to minimize maintenance activities such as sediment removal, so as to have minimal or no additional impact to the operating budget.

USEFUL LIFE: 30+ Years

Project	**Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks**
Program	Flood Protection – Coyote Watershed
Priority No.	65
Project No.	40334005
District Contact	Ngoc Nguyen NNguyen@valleywater.org

Lower Penitencia Creek, looking downstream from Milmont Drive

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along approximately 1 mile of Lower Penitencia Creek from the downstream confluence with Coyote Creek to the downstream face of San Andreas Drive, to accomplish the following objectives:

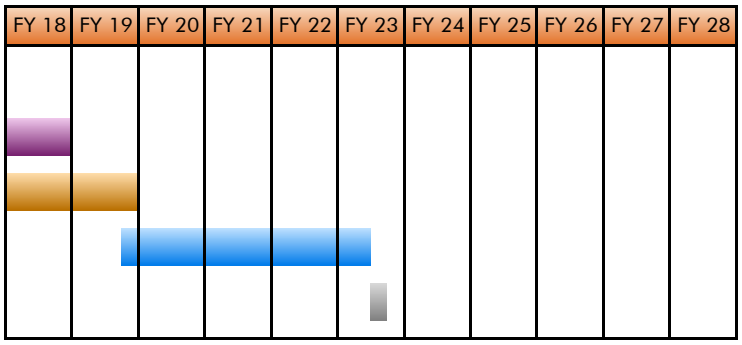
- Convey the Lower Berryessa Creek one-percent design flow.
- Meet required water surface elevations at Coyote Creek and Berryessa Creek confluences.
- Minimize the need for seasonal removal of sediment and non-woody vegetation.
- Maintain existing FEMA accreditation along the east levee located between California Circle and Berryessa Creek.
- Enable FEMA certification of the improvements.

PROJECT LOCATION

SCHEDULE & STATUS

October 2010 to January 2025

Phase	Cost
Plan	3,330
Permits	712
Design	3,193
Construct	17,953
Closeout	20
	26,467



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	6,752	1,486	8,059	9,500	250	250	170	0	26,467
with inflation	6,752	1,486	8,059	9,861	285	298	212	0	26,953

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	9,601	4,815	6,178	1,881	9,861	285	298	212	0	26,953

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	21,953
Department of Water Resources (Prop 1E)	5,000
Total	**26,953**

OPERATING COST IMPACTS

Operating cost impacts will be established during the design phase.

USEFUL LIFE: 50 Years

Project	**Lower Silver Creek, I-680 to Cunningham Avenue (R4-6)**
Program	Flood Protection – Coyote Watershed
Priority No.	98
Project No.	40264007s
District Contact	Katherine Oven koven@valleywater.org

Lower Silver Creek looking upstream from Capital Expressway

PROJECT DESCRIPTION

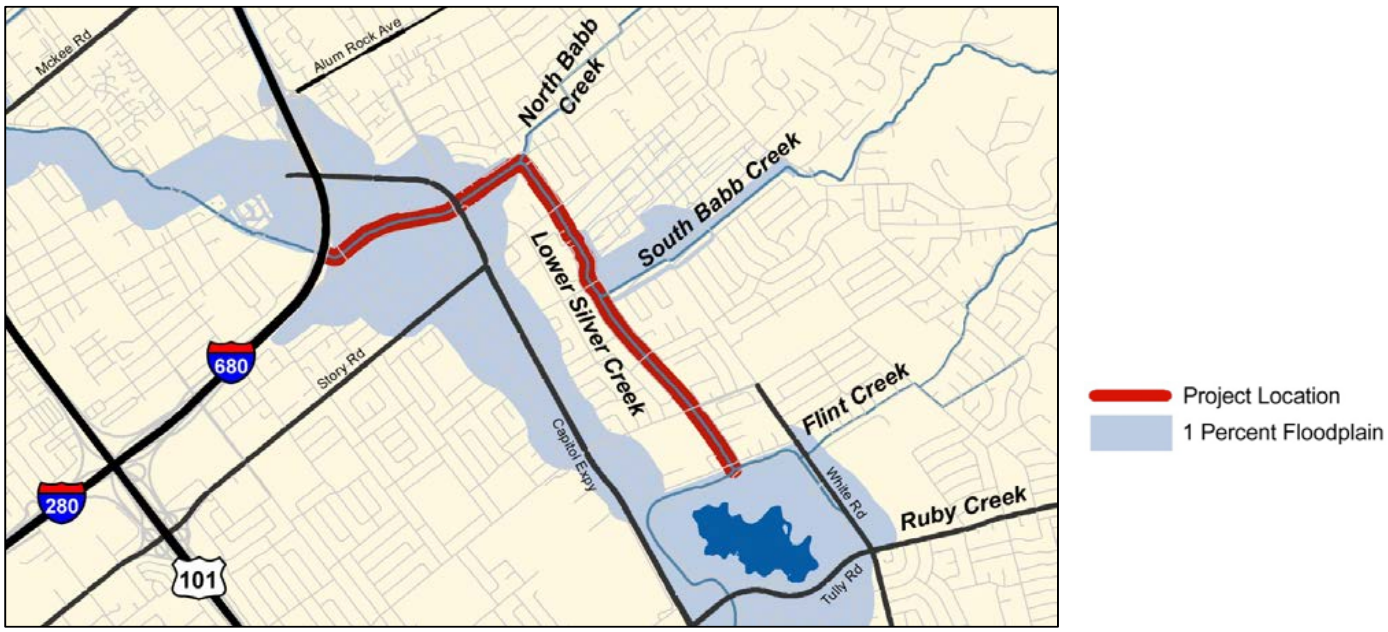
This project is part of a flood control project that partners with the Natural Resource Conservation Service (NRCS) to plan, design and construct improvements along approximately 2.3 miles of Lower Silver Creek, from Interstate 680 to Lake Cunningham. This project includes elements that are eligible for reimbursement from the state and federal governments to accomplish the following objectives:

- Increase flood protection to 3,800 parcels in the surrounding area.
- Allow for on-site mitigation of project impacts, and in some cases enhancement of existing habitat values by increased wetlands and riparian habitat.
- Improve vehicle and pedestrian bridges crossing Lower Silver Creek.
- Develop the footprint for a future trail project between Capitol Avenue-Frontage Road and Jackson Avenue that ensures pedestrians and bicyclists may travel beneath the Dobern Pedestrian Bridge.

This project is accounted for in the following job numbers:

- 40264007 Lower Silver Creek, I-680 to N. Babb Rd. (Reach 4 Planning) - Completed
- 40264008 Lower Silver Creek, I-680 to Cunningham Rd. (Reaches 4-6)
- 40264012 Lower Silver Creek (Reaches 4-6) Reimbursable

PROJECT LOCATION

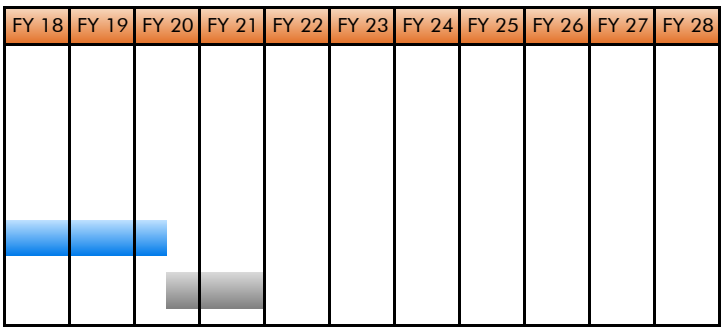


SCHEDULE & STATUS

August 1991 to June 2021

Planning and Design phases are complete

Phase	Cost
Plan	6,308
Permits	202
Design	10,917
Construct	78,152
Closeout	116
	101,217



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40264007-Lower Silver Creek, Reach 4 Planning	2,371	0	0	0	0	0	0	0	2,371
with inflation	2,371	0	0	0	0	0	0	0	2,371
40264008-Lower Silver Ck, Nonreimbursable (R4-6)	93,261	1,981	1,026	285	160	0	0	0	96,713
with inflation	93,261	1,981	1,026	311	182	0	0	0	96,762
40264012-Lower Silver Creek, LERRDs (R4-6)	1,895	52	86	60	40	0	0	0	2,133
with inflation	1,895	52	86	66	46	0	0	0	2,144
TOTAL	97,527	2,033	1,112	345	200	0	0	0	101,217
with inflation	97,527	2,033	1,112	377	228	0	0	0	101,277

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
40264007-Lower Silver Creek, Reach 4 Planning	2,371	0	0	0	0	0	0	0	0	2,371
40264008-Lower Silver Ck, Nonreimbursable (R4-6)	93,778	1,981	517	509	311	182	0	0	0	96,762
40264012-Lower Silver Creek, LERRDs (R4-6)	2,912	0	965	0	0	0	0	0	0	2,912
TOTAL	99,061	1,981	1,482	509	311	182	0	0	0	102,045

Adjusted Budget includes adopted budget plus approved budget adjustments. Approved budget exceeds planned expenditures by approximately $768,000. Excess funds will be returned to fund reserves at the end of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	48,955
State of California	8,414
Natural Resource Conservation Service - ARRA	20,676
California Department of Water Resources	24,000
Total	102,045

OPERATING COST IMPACTS

Operating budget impacts from construction of this project are expected to be insignificant. Repair of several erosion sites will reduce maintenance needs, but will not affect overall sediment removal or vegetation control practices.

USEFUL LIFE: 50+ Years

Project	**Upper Penitencia Creek, Coyote Creek to Dorel Drive**
Program	Flood Protection – Coyote Watershed
Priority No.	66
Project No.	40324003s
District Contact	Vincent Gin vgin@valleywater.org

Flooding at King Road on Upper Penitencia Creek

PROJECT DESCRIPTION

Initially, this project partnered with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements along approximately 4.2 miles of Upper Penitencia Creek, from the confluence with Coyote Creek to Dorel Drive, to accomplish the objectives listed below. In 2016, the Corps decided that the multi-objective project which is appropriate for this creek could not be funded under the existing single-purpose authorization. The Project was not included in the Corp's 2017 workplan.

Objectives:

- Provide one-percent flood protection to more than 5,000 homes, businesses, and public buildings.
- Improve stream habitat values and fisheries potential.
- Reduce sedimentation and maintenance requirements.
- Identify opportunities to integrate recreation improvements consistent with the City of San Jose's Master Plans, the County's Penitencia Creek Master Plan, and Santa Clara Countywide Trails Master Plan.
- Obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA).
- Incorporate the District's Clean, Safe Creeks and Natural Flood Protection (NFP) Program Objectives.

This project is accounted for in the following job numbers:

- 40324003 Conduct initial stages of Planning Phase through FY18.
- 26324001 Safe Clean Water Program

PROJECT LOCATION

SCHEDULE & STATUS

March 1996 to June 2019

Phase	Cost
Plan	10,143
Permits	391
Design	3,495
Construct	38,326
Closeout	-
	52,430

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, Corps	9,206	880	0	0	0	0	0	0	10,086
with inflation	9,206	880	0	0	0	0	0	0	10,086
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	3,587	0	0	0	0	0	0	0	3,587
with inflation	3,587	0	0	0	0	0	0	0	3,587
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	0	0	1,910	0	0	12,990	12,431	11,426	38,757
with inflation	0	0	1,910	0	0	15,491	15,491	14,880	47,772
TOTAL	**12,793**	**880**	**1,910**	**0**	**0**	**12,990**	**12,431**	**11,426**	**52,430**
with inflation	**12,793**	**880**	**1,910**	**0**	**0**	**15,491**	**15,491**	**14,880**	**61,445**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, Corps	8,970	1,116	0	0	0	0	0	0	0	10,086
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	8,544	0	4,957	0	0	0	0	0	0	8,544
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	385	0	385	1,525	0	0	15,491	15,491	14,880	47,772
TOTAL	**17,899**	**1,116**	**5,342**	**1,525**	**0**	**0**	**15,491**	**15,491**	**14,880**	**66,402**

Adjusted Budget includes adopted budget plus approved budget adjustments. Approved Funding exceeds planned expenditures by approximately $4,957,000. Excess funding will be returned to reserves at the end of the project.

FUNDING SOURCES

(in thousands $)

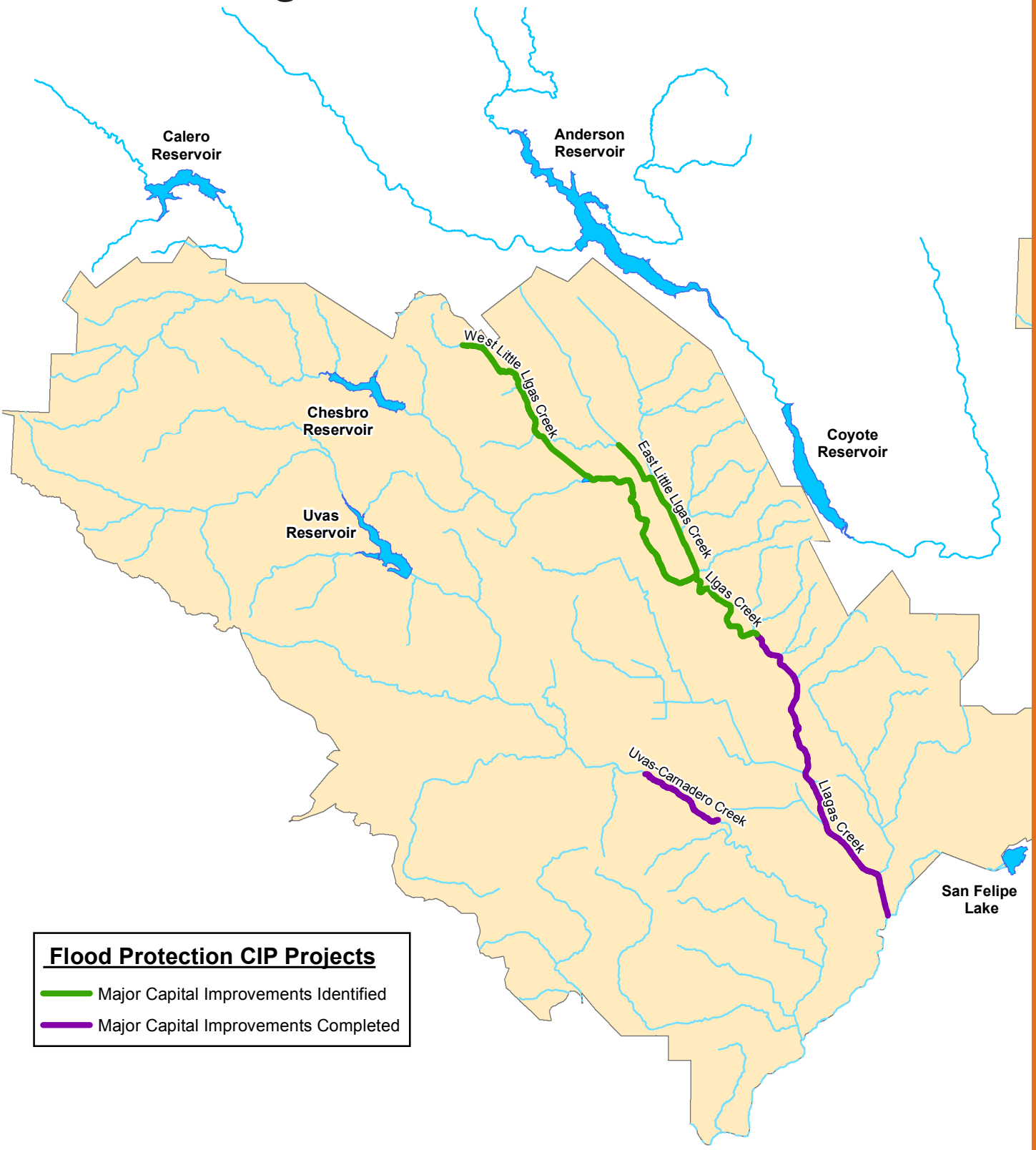
SCVWD Watershed Stream Stewardship Fund	18,630
SCVWD Safe, Clean Water Fund	47,772
Total	**66,402**
U.S. Army Corps of Engineers - In-kind Services	102,720

OPERATING COST IMPACTS

Operating cost impacts will be provided after completion of the planning phase.

USEFUL LIFE: Not Available

Uvas/Llagas Watersheds



Project	**Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River**
Program	Flood Protection – Uvas/Llagas Watershed
Priority No.	65
Project No.	50284010
District Contact	Katherine Oven koven@valleywater.org

Lower Llagas Creek near Pajaro River

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements on approximately 7.15 miles of Lower Llagas Creek, from Buena Vista Avenue to Pajaro River, to accomplish the following objectives:

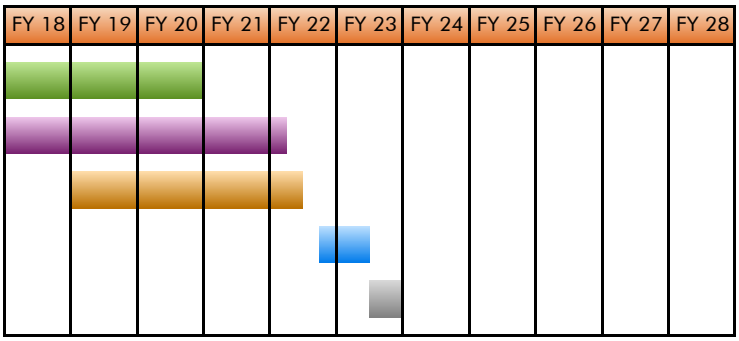
- Evaluate the current flood risk in the area surrounding the project versus the design level flood risk.
- Develop options to provide flood protection for Lower Llagas Creek Reaches 2 and 3 in accordance with Federal Emergency Management Agency (FEMA) criteria where applicable.
- Identify feasible opportunities for environmental restoration and corridor preservation.

PROJECT LOCATION

SCHEDULE & STATUS

July 2008 to June 2023

Phase	Cost
Plan	2,924
Permits	1,754
Design	3,113
Construct	5,000
Closeout	100
	12,891



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
50284010-Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	3,324	52	1,515	2,550	2,850	2,500	100	0	12,891
with inflation	3,324	52	1,515	2,785	3,187	2,891	125	0	13,879

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
50284010-Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	7,046	0	3,670	0	630	3,187	2,891	125	0	13,879

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	12,759
State of California	1,120
Total	13,879

OPERATING COST IMPACTS

Operating costs will be determined during the design phase.

USEFUL LIFE: 30+ Years

Project	**Llagas Creek–Upper, Buena Vista Avenue to Llagas Road**
Program	Flood Protection – Uvas/Llagas Watershed
Priority No.	70
Project No.	26174051s
District Contact	Katherine Oven koven@valleywater.org

Llagas Creek floods at Watsonville Road and the surrounding area

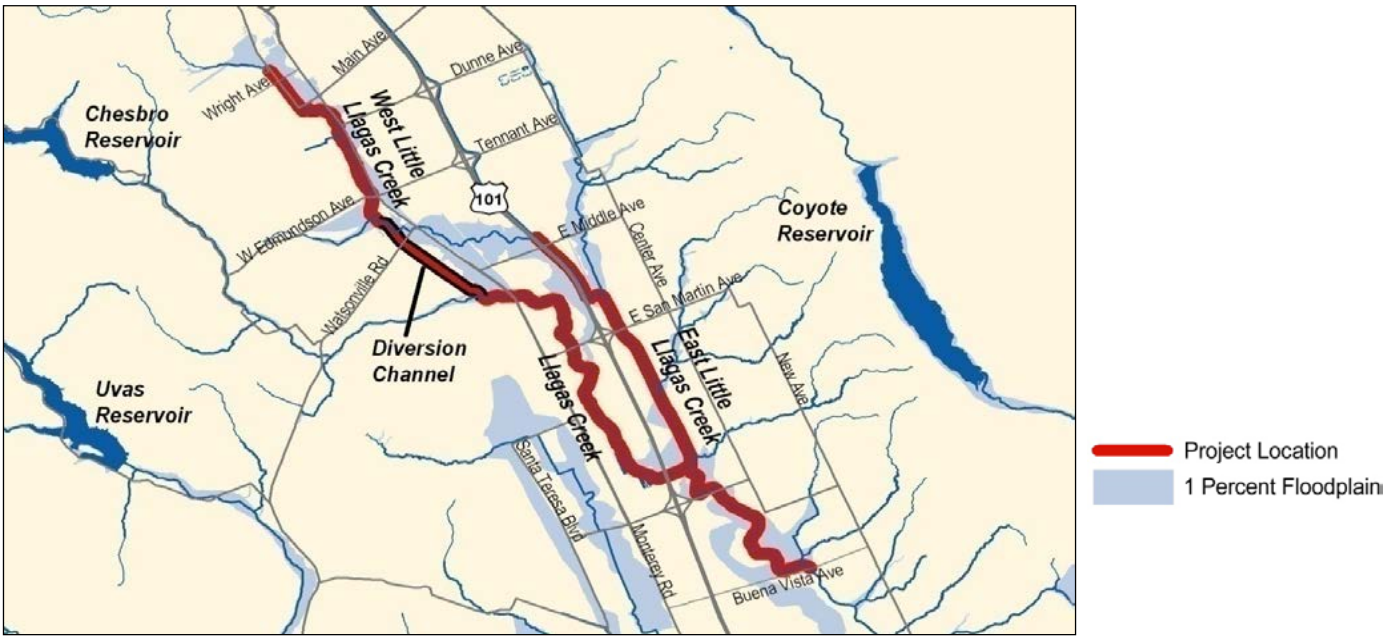
PROJECT DESCRIPTION

This project partners with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements on approximately 13.6 miles of Upper Llagas Creek, from Buena Vista Avenue to Llagas Road, to provide an increased level of flood protection with adequate freeboard. SCVWD shall coordinate with the County of Santa Clara and the City of Morgan Hill on public access and recreational trail opportunities within Reaches 7 and 8 of this project.

This project is accounted for in the following job numbers:

- 26174051- Reaches 4-8 & 14 - Reimbursable - Lands, Easements, Rights of Way, Relocation, & Disposal (LERRDs)
- 26174052- Reaches 4-8 & 14 - Coordination with the Corps
- 26174053- Technical Studies (completed)
- 26174054- Design
- 50C40335- Construction, Reach 5, 6, & 7b

PROJECT LOCATION

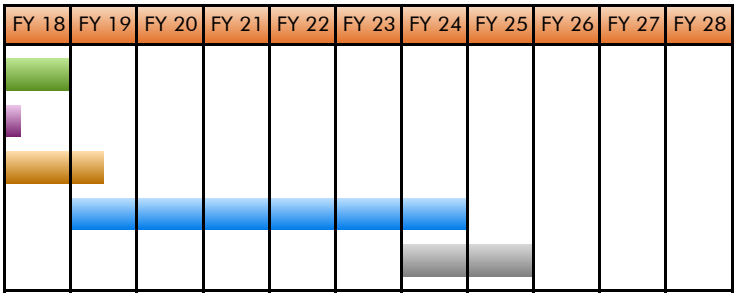


SCHEDULE & STATUS

August 2000 to June 2025

Project schedule may vary considerably and is dependent upon the Corps and Congress.

Phase	Cost
Plan	3,729
Permits	4,423
Design	61,660
Construction	95,751
Closeout	200
	170,242



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26174051-Llagas Ck—Upper, LERRDs	25,099	12,064	5,225	893	0	0	0	0	43,281
with inflation	25,099	12,064	5,225	975	0	0	0	0	43,363
26174052-Llagas Ck—Upper, Corps Coordination	7,176	20,018	9,325	18,000	12,600	5,050	200	450	72,819
with inflation	7,176	20,018	9,045	18,092	12,755	5,252	249	601	73,188
26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0	0	0	0	0	0	1,446
with inflation	1,446	0	0	0	0	0	0	0	1,446
26174054-Llagas Ck—Upper, Design	20,658	2,040	5,240	758	250	250	250	250	29,696
with inflation	20,658	2,040	5,240	828	285	298	312	326	29,986
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	0	0	0	17,000	6,000	0	0	0	23,000
with inflation	0	0	0	18,211	6,652	0	0	0	24,863
TOTAL	**54,379**	**34,122**	**19,790**	**36,651**	**18,850**	**5,300**	**450**	**700**	**170,242**
with inflation	**54,379**	**34,122**	**19,510**	**38,106**	**19,692**	**5,550**	**561**	**926**	**172,846**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26174051-Llagas Ck—Upper, LERRDs	42,951	106	5,894	0	306	0	0	0	0	43,363
26174052-Llagas Ck—Upper, Corps Coordination	40,893	2	13,701	0	13,436	12,755	5,252	249	601	73,188
26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0	0	0	0	0	0	0	1,446
26174054-Llagas Ck—Upper, Design	20,652	2,046	0	5,240	828	285	298	312	326	29,986
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	0	0	0	0	18,211	6,652	0	0	0	24,863
TOTAL	**105,942**	**2,154**	**19,595**	**5,240**	**32,781**	**19,692**	**5,550**	**561**	**926**	**172,846**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	17,900
SCVWD Safe Clean Water Program Fund	89,842
Watershed Stream Stewardship Fund	24,863
State of California	36,900
City of Morgan Hill	3,341
Total	**172,846**
U.S. Army Corps of Engineers - In-kind Services	65,000

OPERATING COST IMPACTS

Operating cost impacts will be provided after completion of the design phase.

USEFUL LIFE: 30+ Years

Multiple Watersheds

Flood Protection CIP Projects

Major Capital Improvements Identified

NOTE:
Location of Erosion Repair projects are not identified on this map.

Project	**San Francisco Bay Shoreline**
Program	Flood Protection – Multiple Watersheds
Priority No.	74
Project No.	00044026s
District Contact	Ngoc Nguyen NNguyen@valleywater.org

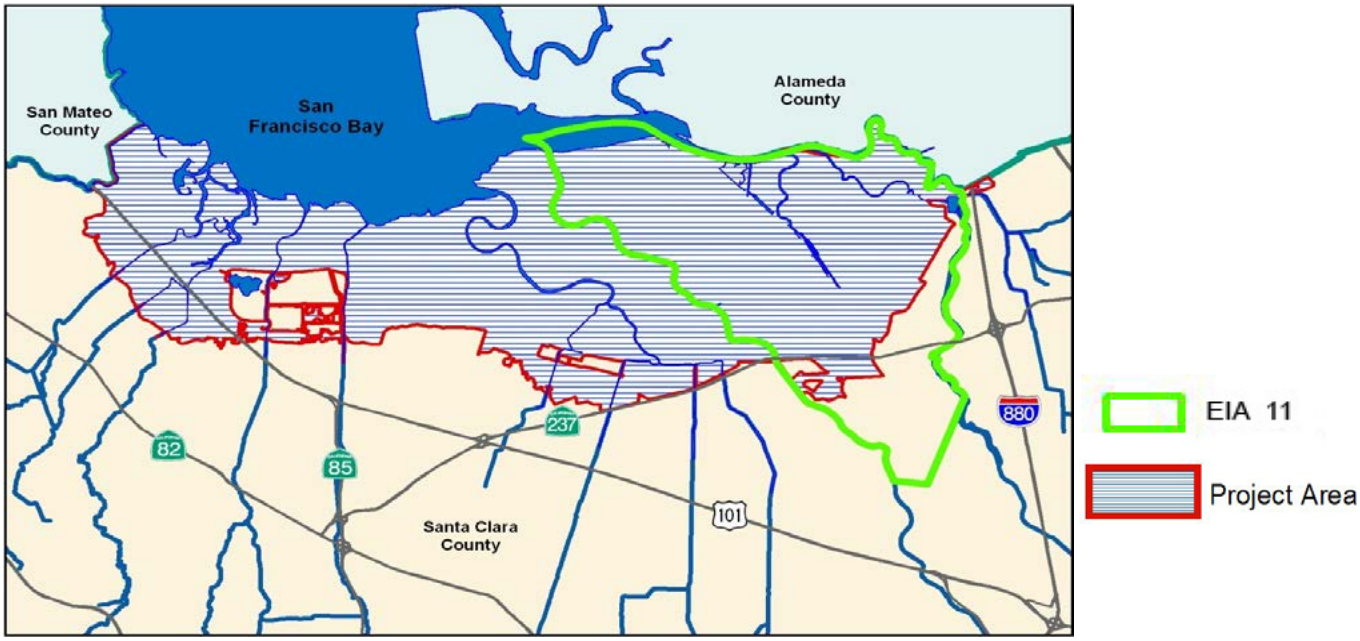
Typical natural tidal marshland in San Francisco Bay near the Shoreline project area

PROJECT DESCRIPTION

This project partners with the California Coastal Conservancy, U.S. Army Corps of Engineers (Corps), and key stakeholders to conduct an integrated, multi-objective project along the San Francisco Bay Shoreline. Project number 00044026 funded the Corps Feasibility Study effort for the North San Jose area, known as Economic Impact Area 11 (EIA 11) which was completed in FY 17; this project number will continue to fund other Shoreline efforts outside of the Safe, Clean Water (SCW) project numbers. The District share of the EIA 11 design and construction is $45.6M. It is expected that some Measure A will partially fund this project. SCW funds will provide $15 million toward the District's cost share of the design and partial construction efforts for EIA 11 and $5 million toward the District's cost share of the planning and design efforts for the remaining EIAs to accomplish the following objectives:

- Provide integrated fluvial and one-percent tidal flood protection.
- Provide protection for future sea level rise projections.
- Restore and/or enhance tidal marsh and related habitats.
- Provide recreational and public access opportunities throughout the tidal floodplain of Santa Clara County.
- Pursue continued federal funding.
- Obtain a Letter of Map Revision from the Federal Emergency Management Agency at completion of the Construction Phase.
- Coordinate closely with the South Bay Salt Pond Restoration Project, City of San Jose, U.S. Fish and Wildlife Services, the community and key stakeholders.

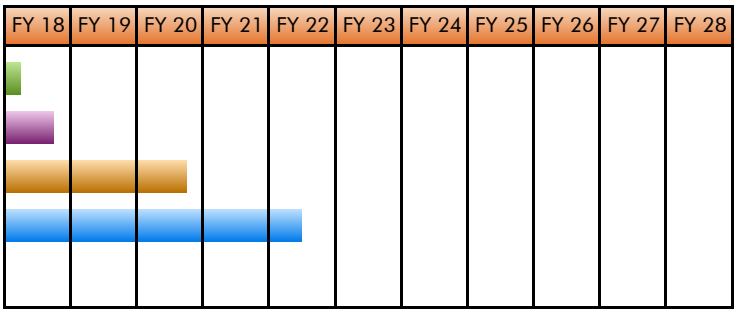
PROJECT LOCATION



SCHEDULE & STATUS

July 2003 to December 2021

Phase	Cost
Plan	18,314
Permits	150
Design	2,218
Construct	19,372
Closeout	-
	41,768



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
00044026-San Francisco Bay Shoreline	14,351	2,721	52	0	0	0	0	0	17,124
with inflation	14,351	2,721	52	0	0	0	0	0	17,124
62044042-Shoreline Early Implementation	359	0	0	0	0	0	0	0	359
with inflation	359	0	0	0	0	0	0	0	359
26444001-EIA 11 Design & Part Construction	1,817	6,728	6,722	3,145	0	0	0	0	18,412
with inflation	1,817	6,728	6,722	3,382	0	0	0	0	18,649
26444002-Other EIAs Planning	1,796	432	163	1,882	1,000	600	0	0	5,873
with inflation	1,796	432	163	2,055	1,141	716	0	0	6,303
TOTAL	**18,323**	**9,881**	**7,559**	**5,027**	**1,000**	**600**	**0**	**0**	**41,768**
with inflation	**18,323**	**9,881**	**6,937**	**5,438**	**1,141**	**716**	**0**	**0**	**42,435**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
00044026-San Francisco Bay Shoreline	14,557	2,721	206	0	0	0	0	0	0	17,278
62044042-Shoreline Early Implementation	359	0	0	0	0	0	0	0	0	359
26444001-EIA 11 Design & Part Construction	7,794	751	0	6,722	3,382	0	0	0	0	18,649
26444002-Other EIAs Planning	3,756	1	1,529	0	689	1,141	716	0	0	6,303
TOTAL	**26,466**	**3,473**	**1,735**	**6,722**	**4,072**	**1,141**	**716**	**0**	**0**	**42,589**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately $154,000. Excess funds will be returned to fund reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	15,206
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund (Environmental Enhancement Grant)	2,011
SCVWD Safe, Clean Water and Natural Flood Protection Fund	24,952
California Department of Water Resources (Pending)	420
Total	**42,589**
Federal Partners, South Bay Salt Ponds (SBSP)	48,470
State, SBSP	14,720
Foundations, Packard-Hewlett-Goldman-Moore, SBSP	17,060
Coastal Conservancy, Shoreline	2,010
Federal, Corps of Engineers, Shoreline	8,990
Total Partnership Funding for In-kind Services	**91,250**

OPERATING COST IMPACTS

Operating costs will be determined during the planning phase.

USEFUL LIFE: Not Available

Project	**Watersheds Asset Rehabilitation Program**
Program	Flood Protection - Multiple Watersheds
Priority No.	74
Project No.	62084001
District Contact	Ngoc Nguyen NNguyen@valleywater.org

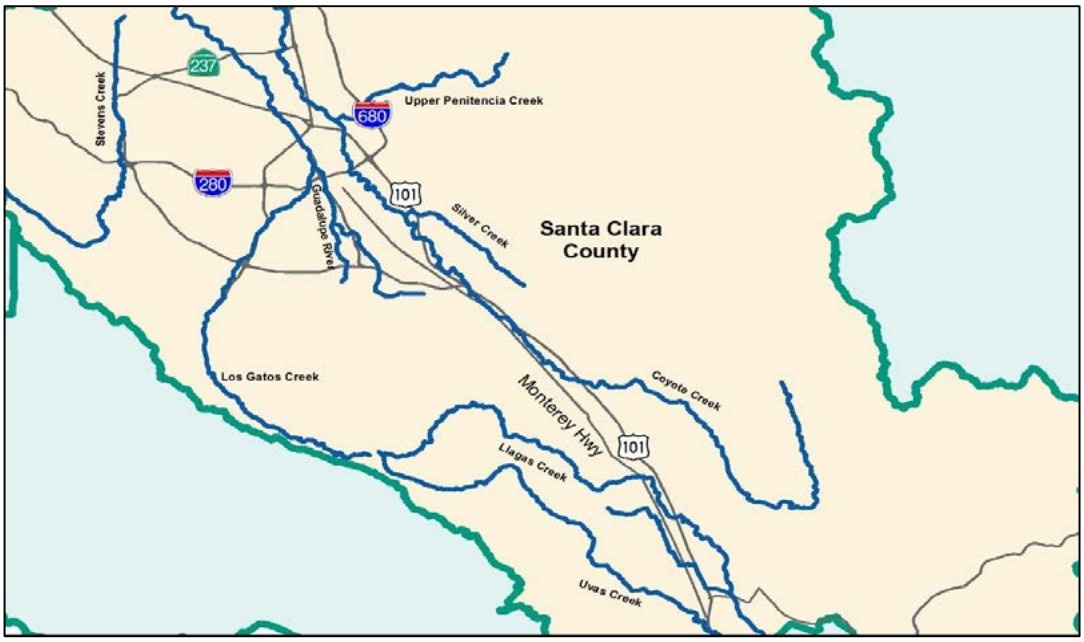
View of damage caused by burrowing animlas along West Branch of Llagas Creek in the Uvas/Llagas Watershed

PROJECT DESCRIPTION

This project plans, designs, and constructs repairs to levee and stream bank sites that have erosion damage. Each site requires a different type of repair based on location, severity, and velocities in the creek. The objective of this project is to restore the stream bank or levee to a stable condition so as to reduce the risk of flooding and/or damage to adjacent properties and facilities. For facilities with animal conflict damage, the objective is to repair the damage caused by animas and where applicable, install deterrents for future animal activities. The repair work consists of, but is not limited to:

- Excavation and rebuilding of eroded soil material.
- Installation of rodent barriers such as mesh or fabric.
- Repairing the banks with methods commensurate with the extents of damage and environmental constraints.
- Geomorphic channel restoration with bed and bank repair.
- Outfall restoration and repair.
- Sediment removal and blockage repair.
- Fish ladder modifications and repairs.

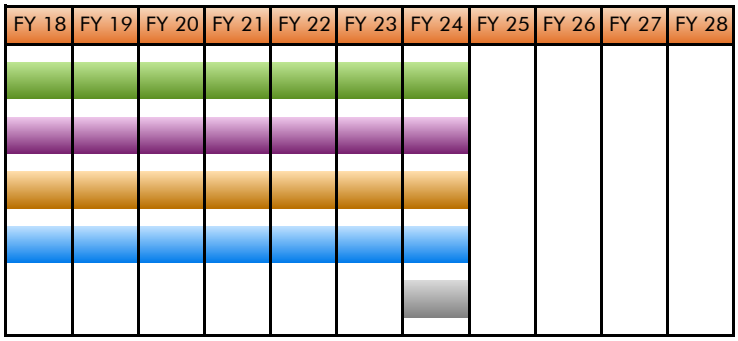
PROJECT LOCATION



SCHEDULE & STATUS

Several small projects go through the design and construction phases each year under the SMP-2 permit.

Phase	Cost
Plan	5,872
Permits	5,801
Design	20,120
Construct	106,713
Closeout	747
	139,279



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
62084001-Watersheds Asset Rehabilitation Program	2,066	12,496	9,892	9,625	8,000	8,100	8,100	81,000	139,279
with inflation	2,066	12,496	9,892	10,384	8,936	9,387	9,740	117,650	180,552

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
62084001-Watersheds Asset Rehabilitation Program	3,515	11,047	0	9,892	10,384	8,936	9,387	9,740	117,650	180,552

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	180,552
Other Funding Sources	0
Total	180,552

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: Not Available

Water Resources Stewardship

Water Resources Stewardship Capital Improvements

WATER RESOURCES STEWARDSHIP OVERVIEW

The District plans, designs and constructs various capital projects to meet the Board's Ends Policy E-4, "There is water resources stewardship to protect and enhance watersheds and natural resources and improve the quality of life in Santa Clara County." These projects may fulfill environmental enhancement, mitigation or stewardship goals and priorities.

The District has placed an emphasis on stewardship since 1999 when the Water District's Board of Directors adopted a mission and policies that added a focus on environmental stewardship. In 2001, the California legislature added environmental stewardship to the Water District's purpose. Specifically, the Water District's environmental stewardship activities focus on these three areas:

- Healthy creek and bay ecosystems
- Clean, safe water in creeks and the bay
- Improved quality of life through trails, open space and water resources management

The Water District's stewarship work is extensive. Actions to protect the environment are woven into all we do. Some of the Districts stewardship accomplishments since 2000 are:

- Rehabilitated or restored 90 acres of riparian habitat and 600 acres of tidal wetland habitat
- Provided funding for 92 projects that resulted in 71 miles of public access
- Removed over 2,660 lbs of mercury from the Guadalupe Watershed
- Made 40 miles of streams accessible for fish
- In conjunction with the Open Space Authority, acquiring 1,300 acres of land for preservation of California Red Legged Frog and California Tiger Salamander habitat

Environmental Enhancement & Stewardship Projects

Environmental enhancement projects are constructed at the direction of the Board either to meet the Safe, Clean Water and Natural Flood Protection program (SCW) obligations or to meet other Board priorities.

The District's Safe, Clean Water Program, approved by the voters of Santa Clara County in 2012, committed funding for environmental enhancement activities that create or restore tidal or riparian habitat. A selection process will be conducted to allocate the SCW funding to the enhancement opportunities that meet Board-defined characteristics.

Stewardship projects are implemented to promote water quality awareness; reduce pollutants in streams; support additional trails, parks and open space; support creek side recreation; and reduce green house gas. Stewardship projects are implemented at the discretion of the Board when reasonable and appropriate. These projects are often accomplished in partnership with or support of other agencies.

Major Capital Improvements Identified in the CIP

- Watershed Habitat Enhancement Design & Construction
- Stevens Creek Fish Passage Enhancement
- Hale Creek Enhancement Pilot Study
- Almaden Lake Improvements
- Salt Ponds A5-11 Restoration
- SCW Fish Passage Improvements

Mitigation Projects

The District manages many mitigation sites and continues to plan, design, and construct new mitigation sites to fulfill CEQA and regulatory permit requirements for both capital projects and operations activities. Mitigation requirements for capital projects may be incorporated into the project scope or accomplished as a separate project.

Major Capital Improvements Identified in the CIP

- SMP Mitigation, Stream and Watershed Land Preservation

Feasibility Studies

In July 2016 the board provided direction for increased visibility and accelerated delivery of Environmental stewardship projects to meet Board priorities. The District has dedicated four additional full-time positions to complete the feasibility studies that have been included in the FY 2019-23 CIP. These feasibility studies will determine the viability of a number of projects that are of interest to the community.

Major Capital Improvements Identified in the CIP

- Watershed Habitat Enhancement Design and Construction

PRIORITY PROCESS AND FINANCIAL ANALYSIS

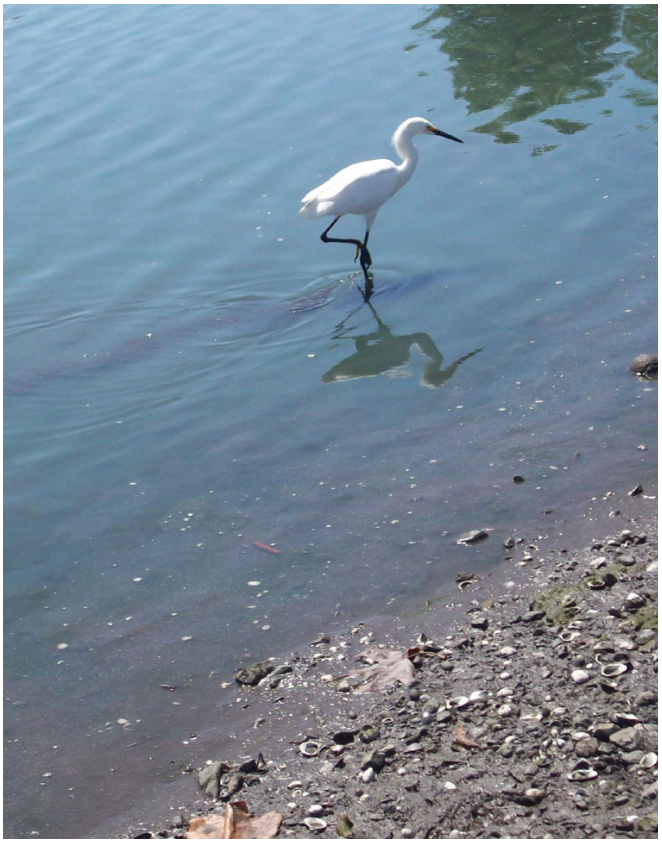
Environmental enhancement and stewardship projects are implemented at the discretion of the Board. Projects may go through a ranking process to compete for Safe, Clean Water funds or the Board may direct that other available revenue be used to implement the proposed projects. The inclusion of these projects in the Fiscal Year 2019-23 CIP has been approved by the Board. The priority criteria used to evaluate these projects are included in Appendix A.

Implementation of Mitigation projects is considered non-discretionary since they are needed to meet California Environmental Quality Act (CEQA) or regulatory permit commitments. Funding for mitigation projects is allocated without a prioritization process.

Financial analysis of the following funding sources for Water Resources Stewardship capital improvements was conducted to determine if there are limitations to funding currently planned capital projects.

- Watershed and Stream Stewardship Fund
- Safe, Clean Water Fund
- Water Utility Enterprise Fund

Funding needs for approved Water Resources Stewardship projects can be met.



Water Resources Stewardship Capital Improvements

The following table is a project funding schedule for water resources stewardship capital improvements resulting from this year's financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

Water Resources Stewardship Capital Improvements ($K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
	ENVIRONMENTAL ENHANCEMENT & STEWARDSHIP										
	Lower Peninsula Watershed										
00294001s	Stevens Creek Fish Passage Enhancement D4.x	850	-	-	-	-	2,257	7,182	3,836	7,009	21,134
26164001	Hale Creek Enhancement Pilot Study (D6)	945	1,306	23	2,580	-	-	-	-	-	4,831
	Guadalupe Watershed										
26044001	Almaden Lake Improvements (D4.1a)	3,709	654	1,009	192	9,091	9,411	9,742	-	-	32,799
	Coyote Watershed										
00C40400s	Watershed Habitat Enhancement Design & Construction	-	-	-	-	-	2,282	4,771	4,984	53,461	65,498
	Multiple Watersheds										
20444001s	Salt Ponds A5-11 Restoration	4,768	767	768	94	358	-	1,604	1,662	3,984	13,237
26044002	SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, S	3,664	224	933	392	-	-	-	-	-	4,280
26C40370	SCW Implementation Fund	-	-	-	-	4,276	8,118	967	775	6,688	20,824
	ENVIRONMENTAL FEASIBILITY STUDIES										
62044001	Watershed Habitat Enhancement Studies	90	1,167	66	1,016	-	-	-	-	-	2,273
	ENVIRONMENTAL MITGATION										
62184001	SMP Mitigation, Stream and Watershed Land Preservation	16,224	510	-	-	-	-	-	-	-	16,734
	TOTAL	30,250	4,628	2,799	4,274	13,725	22,068	24,266	11,257	71,142	181,610

FY 2017-18 Funds to be reappropriated

The following table shows funding requirements from each funding source for mitigation capital improvements.

Water Resources Stewardship – Funding Sources ($K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
61	Water Utility Enterprise Fund	765	-	-	-	-	4,006	6,713	3,738	39,237	54,458
12	Watershed Stream Stewardship Fund	20,632	2,431	517	1,110	358	534	6,844	6,744	21,350	60,003
26	Safe, Clean Water and Natural Flood Protection Fund	8,853	2,197	2,282	3,164	13,367	17,529	10,709	775	10,555	67,149
	TOTAL	30,250	4,628	2,799	4,274	13,725	22,068	24,266	11,257	71,142	181,610

FY 2017-18 Funds to be reappropriated

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Environmental Enhancement & Stewardship

Lower Peninsula Watershed

Project	**Stevens Creek Fish Passage Enhancements**
Program	Water Resources Stewardship - Environmental Enhancement
Priority No.	72
Project No.	00294001s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

Example of a fish ladder to be modified or reconstructed for better fish passage

PROJECT DESCRIPTION

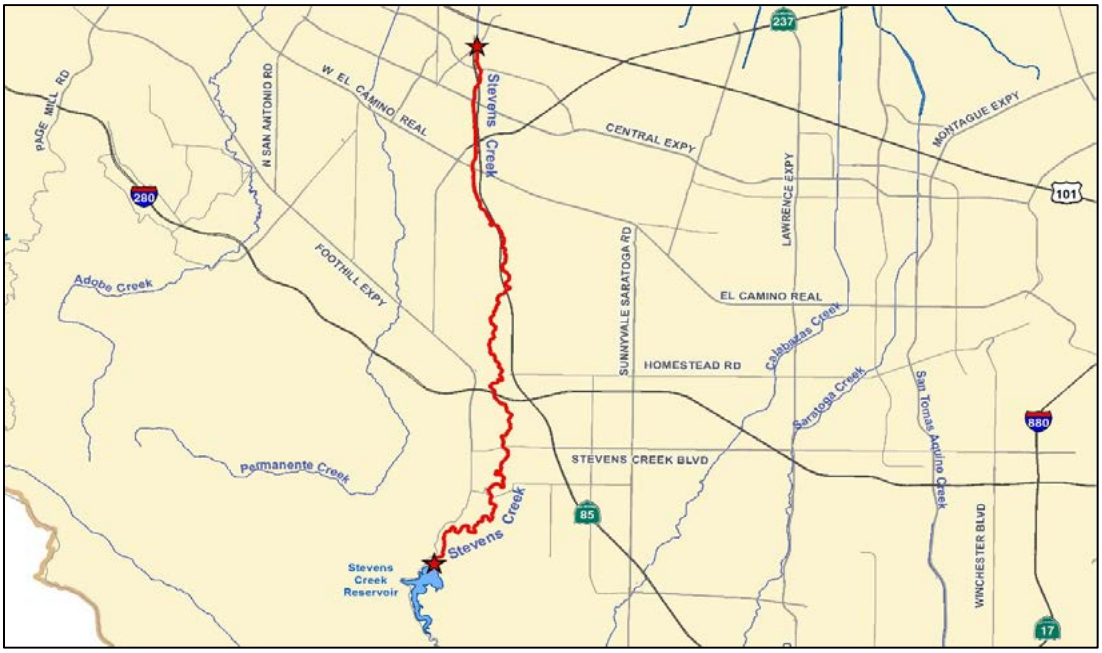
This project plans, designs, and constructs improvements to the Moffett Boulevard fish ladder to improve fish passage as well as a multiport outlet at Stevens Creek Dam to accomplish the following objectives:

- Restore and maintain a healthy steelhead trout population in the Stevens Creek watershed.
- Provide a suitable spawning and rearing habitat below Stevens Creek Dam within a cold water management zone determined on an annual basis through the development of an operations plan.
- Provide adequate passage for adult steelhead trout to reach suitable spawning and rearing habitat and for out-migration of juveniles.

This project is accounted for in the following job numbers:

- 00294001 Fish Passage Planning
- 00C40145 Moffett Boulevard Fish Ladder
- 00C40198 Multi-Port Outlet at Dam
- 62C40403 Stevens Creek Fish Barrier Removal Construction

PROJECT LOCATION



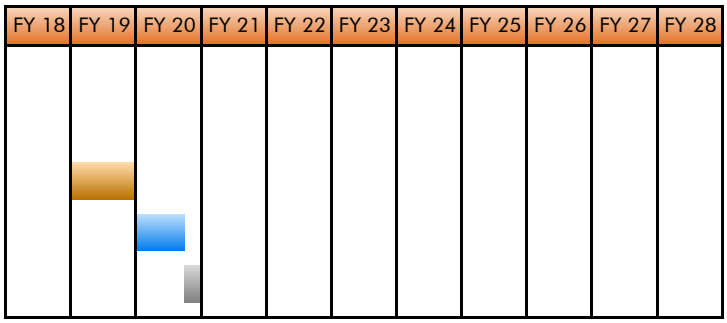
Project Location

SCHEDULE & STATUS

July 2008 to June 2020

Planning phase is complete. Project on hold pending completion of the Three Creeks Habitat Conservation Plan, to be done in a separate operating project.

Phase	Cost
Plan	850
Permits	122
Design	1,516
Construct	2,994
Closeout	80
	5,562



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
00294001-FAHCE Stevens Ck Fish Passage Planning	850	0	0	0	0	0	0	0	850
with inflation	850	0	0	0	0	0	0	0	850
00C40145-FAHCE Stevens Ck Fish Ladder at Moffett Blvd	0	0	0	0	1,305	1,841	0	0	3,146
with inflation	0	0	0	0	1,489	2,112	0	0	3,602
00C40198-FAHCE Stevens Ck Dam Multi-Port Outlet	0	0	0	0	373	1,193	0	0	1,566
with inflation	0	0	0	0	426	1,371	0	0	1,797
62C40403-Stevens Ck Fish Barrier Removal Construction	0	0	0	0	300	3,200	3,200	5,600	12,300
with inflation	0	0	0	0	342	3,699	3,836	7,009	14,886
TOTAL	**850**	**0**	**0**	**0**	**1,978**	**6,234**	**3,200**	**5,600**	**17,862**
with inflation	**850**	**0**	**0**	**0**	**2,257**	**7,183**	**3,836**	**7,009**	**21,135**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
00294001-FAHCE Stevens Ck Fish Passage Planning	850	0	0	0	0	0	0	0	0	850
00C40145-FAHCE Stevens Ck Fish Ladder at Moffett Blvd	0	0	0	0	0	1,489	2,112	0	0	3,602
00C40198-FAHCE Stevens Ck Dam Multi-Port Outlet	0	0	0	0	0	426	1,371	0	0	1,797
62C40403-Stevens Ck Fish Barrier Removal Construction	0	0	0	0	0	342	3,699	3,836	7,009	14,886
TOTAL	**850**	**0**	**0**	**0**	**0**	**2,257**	**7,183**	**3,836**	**7,009**	**21,135**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund–10%	2,113
SCVWD Water Utility Enterprise Fund–90%	19,021
Total	**21,135**

OPERATING COST IMPACTS

Operating costs will be determined during the design phase.

USEFUL LIFE: 50 Years

Project	**Hale Creek Enhancement Pilot Study**
Program	Water Resources Stewardship - Environmental Enhancements
Priority No.	77
Project No.	26164001
District Contact	Ngoc Nguyen NNguyen@valleywater.org

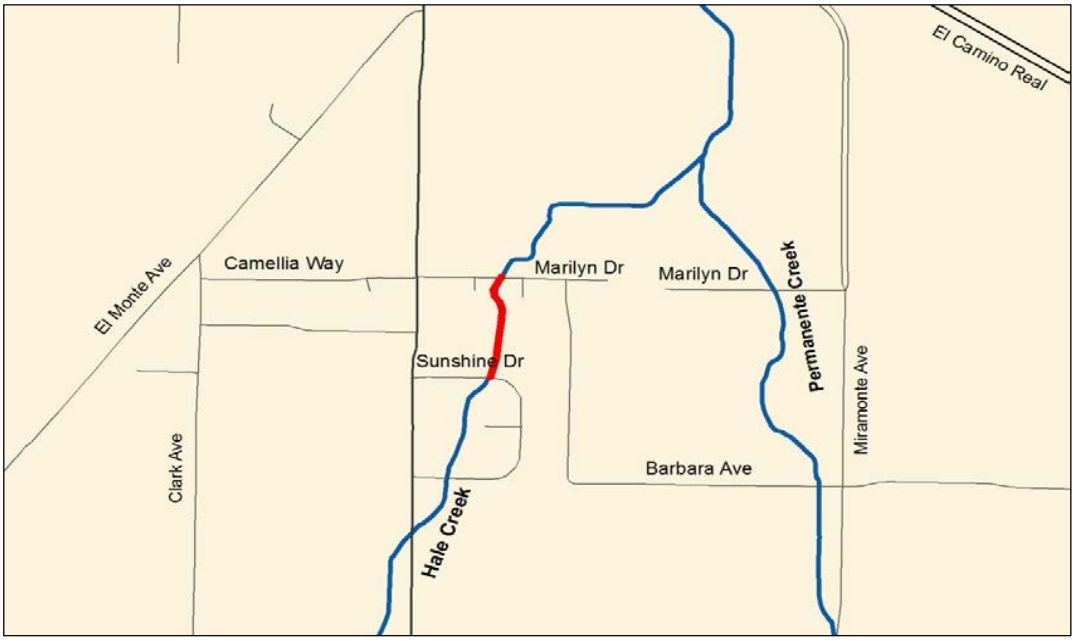
Reach to be modified downstream of 7th Day Adventist foot bridge between Marilyn Drive and North Sunshine Drive

PROJECT DESCRIPTION

This pilot project plans, designs, and constructs improvements to an approximately 500-foot long reach in Hale Creek to accomplish the following objectives:

- Provide flood protection and enhance habitat.
- Restore stream recharge capability to a concrete-lined portion.
- Remove existing concrete channel and replace with a vegetated soft-bottom channel.

PROJECT LOCATION

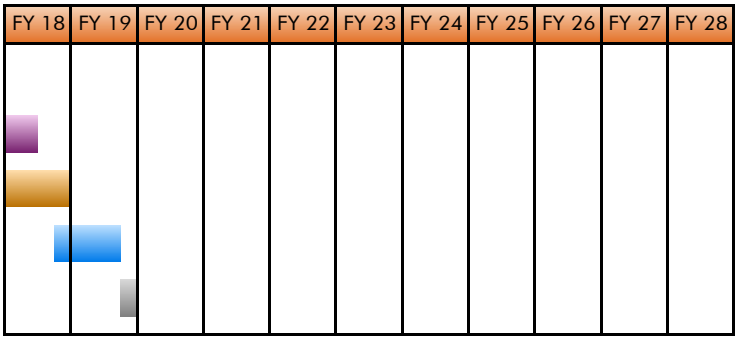


Project Location

SCHEDULE & STATUS

May 2015 to June 2019

Phase	Cost
Plan	34
Permits	89
Design	925
Construct	3,763
Closeout	10
	4,821



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26164001-Hale Creek Enhancement Pilot Study	654	1,574	2,603	0	0	0	0	0	4,831
with inflation	654	1,574	2,603	0	0	0	0	0	4,831

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26164001-Hale Creek Enhancement Pilot Study	945	1,306	23	2,580	0	0	0	0	0	4,831

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Safe, Clean Water Fund	4,831
Other Funding Sources	0
Total	4,831

OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the design phase.

USEFUL LIFE: Not available

Environmental Enhancement & Stewardship

Guadalupe Watershed

Project	**Almaden Lake Improvements**
Program	Water Resources Stewardship – Environmental Enhancement
Priority No.	85
Project No.	26044001
District Contact	Ngoc Nguyen nnguyen@valleywater.org

A southern view of Almaden Lake, through which Alamitos Creek flows

PROJECT DESCRIPTION

The project will separate Alamitos Creek from Almaden Lake and restore Alamitos Creek's stream function within the footprint of Almaden Lake. The goals are to improve water quality and physical habitat for steelhead and other anadromous fish by separating the creek from the lake while incorporating the principle of geomorphic design and to create a self-sustaining channel that requires little maintenance to keep it viable for fisheries and wildlife benefits. Benefits of this project will be the creation of channel complexity in the restored stream channel such as instream riffle-pool habitat, cover for rearing fish, gravel to support spawning and plantings that will provide numerous ancillary wildlife benefits; reduction of high water temperatures released from Almaden Lake into Alamitos Creek; and removal of entrainment, predatory and methylmercury impacts to anadromous fish from Almaden Lake. The objectives are as follows:

- Separate Alamitos Creek from Almaden Lake.
- Reduce thermal barrier to migration of anadromous fish.
- Remove entrainment and impacts from predatory species to anadromous fish.
- Reduce mercury concentration in target fish to meet applicable water quality objectives.
- Minimize impacts to recreational features.

This project is funded for the planning and design phase from the Safe, Clean Water, Priority D4. Funding for construction may also be available from the Safe, Clean Water Program.

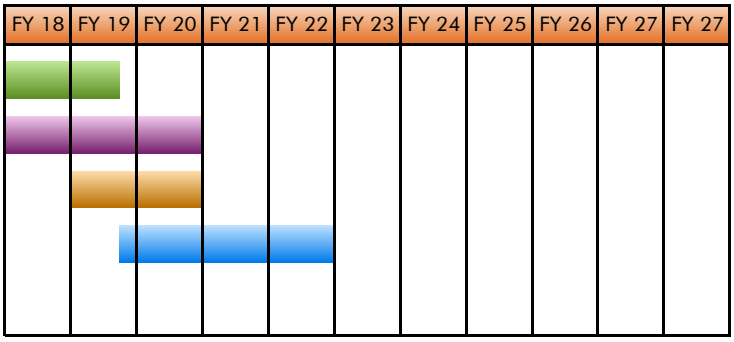
PROJECT LOCATION

SCHEDULE & STATUS

July 2011 to June 2019

Planning Phase and some Design tasks. Construction is not funded at this time.

Phase	Cost
Plan	2,175
Permits	838
Design	1,170
Construct	25,452
Closeout	-
	30,007



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26044001-Almaden Lake Improvements	2,614	740	1,201	8,484	8,484	8,484	0	0	30,007
with inflation	2,614	740	1,201	9,091	9,411	9,742	0	0	32,800

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26044001-Almaden Lake Improvements	3,709	654	1,009	192	9,091	9,411	9,742	0	0	32,800

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Safe,Clean Water Fund	32,800
Other Funding Sources	0
Total	32,800

OPERATING COST IMPACTS

No operating cost impacts are expected from the completion of the planning and design phases of the project.

USEFUL LIFE: 100 Years

Environmental Enhancement & Stewardship

Coyote Watershed

Project	**Watershed Habitat Enhancements Design & Construction**
Program	Water Resources Stewardship
Priority No.	N/A
Project No.	00C40400s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

Aerial view looking downstream of the Ogier Pond complex

PROJECT DESCRIPTION

This project provides for future design and construction of possible habitat enhancements at Ogier Ponds and Metcalf Ponds along Coyote Creek if feasiblity projects are identified in the feasibility studies currently underway in Project 6204400, and the Board approves proceeding with the work. Funding for this project is contingent on a successful FAHCE settlement. This project accomplishes the following objectives:

- Enhance a healthy steelhead trout and salmon population in the Coyote Creek watershed.

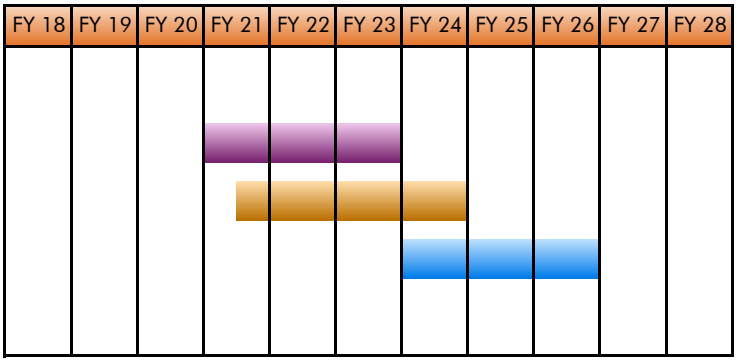
PROJECT LOCATION

★ Project Location

SCHEDULE & STATUS

April 2017 to June 2019

Phase	Cost
Plan	-
Permits	2,000
Design	11,000
Construct	39,000
Closeout	-
	52,000



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
95C40400 Metcalf Ponds Design & Construction	0	0	0	0	2,000	2,000	2,000	20,000	26,000
with inflation	0	0	0	0	2,282	2,385	2,492	25,013	32,173
00C40401s Ogier Ponds Design & Construction	0	0	0	0	0	2,000	2,000	22,000	26,000
with inflation	0	0	0	0	0	2,385	2,492	28,450	33,328
TOTAL	**0**	**0**	**0**	**0**	**2,000**	**4,000**	**4,000**	**42,000**	**52,000**
with inflation	**0**	**0**	**0**	**0**	**2,282**	**4,770**	**4,985**	**53,463**	**65,500**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
95C40400 Metcalf Ponds Design & Construction	0	0	0	0	0	2,282	2,385	2,492	25,013	32,173
00C40401s Ogier Ponds Design & Construction	0	0	0	0	0	0	2,385	2,492	28,450	33,328
TOTAL	**0**	**0**	**0**	**0**	**0**	**2,282**	**4,770**	**4,985**	**53,463**	**65,500**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	32,173
SCVWD Watershed and Stream Stewardship Fund	16,664
SCVWD Safe, Clean Water Fund	0
Total	**65,500**

OPERATING COST IMPACTS

No operating impacts are anticipated from this project because this is a feasibility study. New projects may be proposed as potential sites are evaluated.

USEFUL LIFE: N/A

Environmental Enhancement & Stewardship

Multiple Watersheds

Project	**Salt Ponds A5-11 Restoration**
Program	Water Resources Stewardship - Environmental Enhancements
Priority No.	50
Project No.	20444001s
District Contact	Vincent Gin vgin@valleywater.org

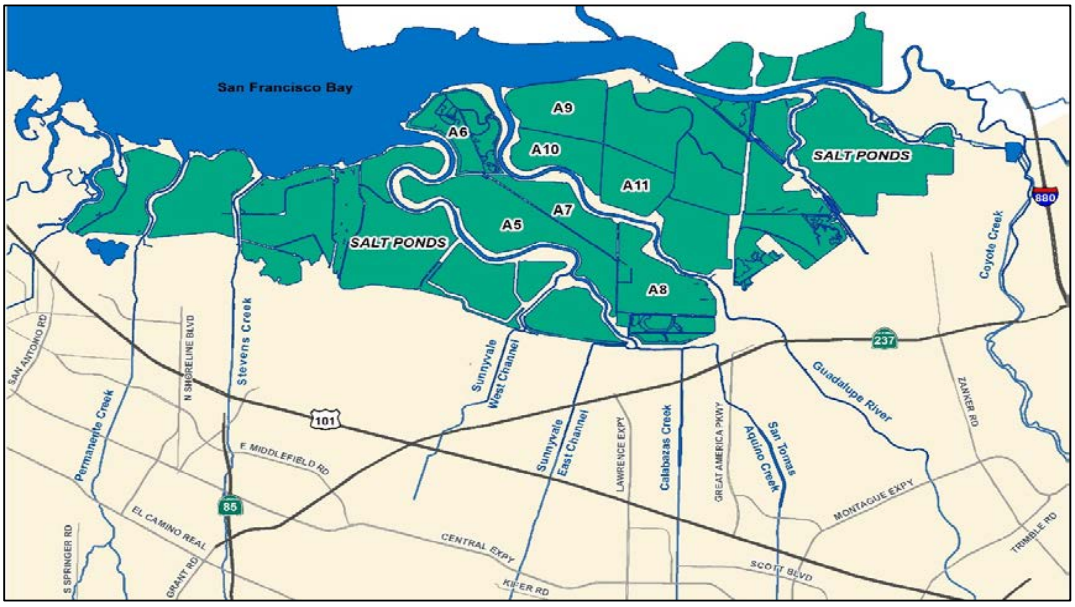
View of one of the former salt evaporator facilities near Alviso

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the South Bay Salt Ponds to accomplish the following objectives:

- Realign Calabazas and San Tomas Creeks to flow directly into Pond A8.
- Meet permiting requirements for the creek's realignment or further restoration efforts.
- Fully open the Pond A8 Notch to increase tidal flow into the pond.
- Restoration of Ponds A5 through A11 of the Alviso Complex.
- Improve or construct roads at new placement sites.
- Restore the South Bay Salt Ponds to improve wildlife habitat and protect residents from tidal flooding.

PROJECT LOCATION

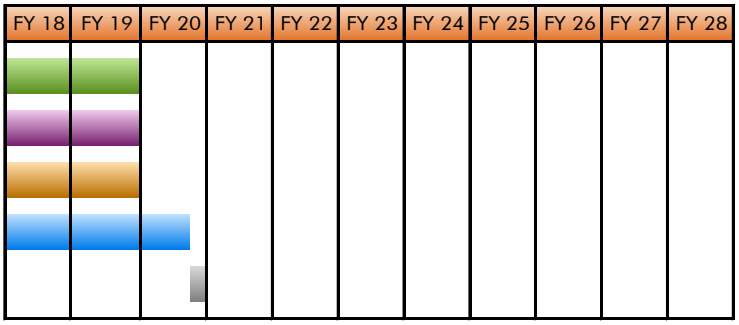


Project Location

SCHEDULE & STATUS

July 2015 to June 2020

Phase	Cost
Plan	155
Permits	2,542
Design	250
Construct	7,537
Closeout	5
	11,782



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
20444001 - Salt Ponds A5-11 Restoration	3,192	1,344	545	328	0	1,390	1,390	90	8,279
with inflation	3,192	1,344	545	358	0	1,604	1,662	117	8,822
26444003 - South Salt Ponds Restoration	231	0	0	0	0	0	0	3,272	3,503
with inflation	231	0	0	0	0	0	0	4,185	4,416
TOTAL	**3,423**	**1,344**	**545**	**328**	**0**	**1,390**	**1,390**	**3,362**	**11,782**
with inflation	**3,423**	**1,344**	**545**	**358**	**0**	**1,604**	**1,662**	**4,302**	**13,238**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
20444001 - Salt Ponds A5-11 Restoration	4,233	754	451	94	358	0	1,604	1,662	117	8,822
26444003 - South Salt Ponds Restoration	535	13	317	0	0	0	0	0	3,868	4,416
TOTAL	**4,233**	**767**	**768**	**94**	**358**	**0**	**1,604**	**1,662**	**3,985**	**13,238**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

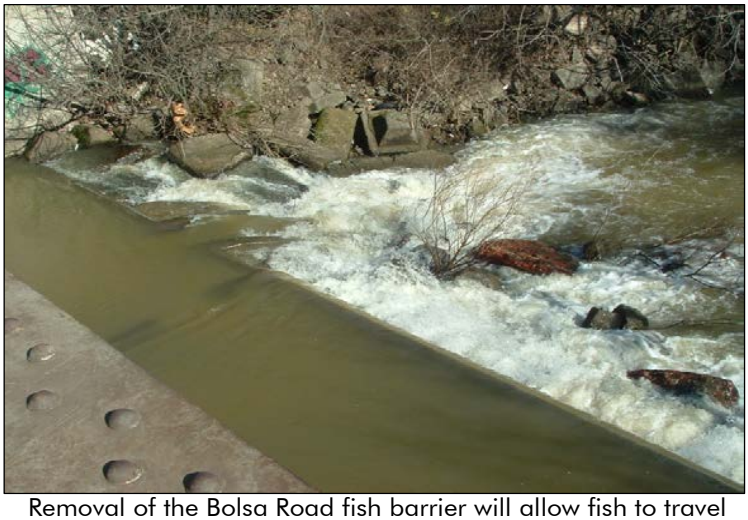
SCVWD Watershed and Stream Stewardship Fund	8,822
SCVWD Safe, Clean Water Fund	4,416
Other Funding Sources	0
Total	**13,238**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $4 million every three years, beginning in FY 2020, for on-going sediment removal.

USEFUL LIFE: Not Available

Project	**SCW Fish Passage Improvements** (D4.3)
Program	Water Resources Stewardship - Environmental Enhancements
Priority No.	80
Project No.	26044002
District Contact	Katherine Oven koven@valleywater.org



Removal of the Bolsa Road fish barrier will allow fish to travel upstream

PROJECT DESCRIPTION

This project plans, designs and constructs improvements for two high priority fish barriers in Santa Clara County. A third priority barrier, owned by the City of San Jose, will be remediated through a project partnership with funds allocated from this project. The project will accomplish the following objectives:

- Planning, design and construction for a passage impediment at the Evelyn Bridge preventing upstream/downstream movement of steelhead in the Stevens Creek watershed. Remediation of this barrier will facilitate movement to 8.8 miles of higher quality upstream habitat and allow for out-migrant fish to access San Francisco Bay unimpeded. (Completed in 2016)
- Planning, design and construction for a passage impediment at the Bolsa Road railroad bridge in the Uvas Watershed. Remediation of this site will allow access to approximately 22 miles of higher quality habitat upstream as well as unimpeded access for out-migrant fish through the project site.
- Prepare a partnership agreement and provide technical support to the City of San Jose for removal of the Singleton Road Bridge in Coyote Creek. Removal of this passage impediment will facilitate movement of migratory fish for approximately 17.6 miles creek above the site and allow for unimpeded access of out-migrant fish through the site.

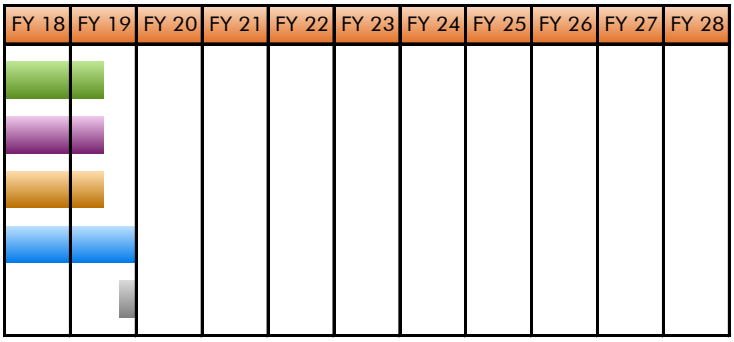
PROJECT LOCATION

★ Project Location

SCHEDULE & STATUS

July 2015 to June 2019

Phase	Cost
Plan	176
Permits	65
Design	525
Construct	3,434
Closeout	50
	4,250



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26044002-SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, Singleton)	1,317	1,638	1,325	0	0	0	0	0	4,280
with inflation	1,317	1,638	1,325	0	0	0	0	0	4,280

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26044002-SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, Singleton)	3,664	224	933	392	0	0	0	0	0	4,280

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Safe, Clean Water Fund	4,280
Other Funding Sources	0
Total	4,280

OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

USEFUL LIFE: 50 Years

Project	**SCW Implementation Fund**
Program	Water Resources Stewardship
Priority No.	75
Project No.	26C40370
District Contact	Ngoc Nguyen NNguyen@valleywater.org

One possible site: Almaden Lake, as shown here upstream from the Guadalupe Creek confluence

PROJECT DESCRIPTION

This project is a placeholder for future capital projects that have not been fully defined. These projects will implement Safe Clean Water (SCW) objectives and are likely to include projects such as Comer Debris Basin, and construction of Lake Almaden-Guadalupe River-Alamitos Creek Restoration. Funds will be moved from this project into actual projects once they have been defined and vetted to ensure they meet the following program objectives:

- Create favorable stream conditions to restore and maintain fisheries.
- Increase the stability of stream channels through construction based on geomorphic principles.
- Acquisition of property for the conservation of habitat.

PROJECT LOCATION

No map is provided for this project

SCHEDULE & STATUS

July 2018 to June 2032

Data shown here is based on preliminary information. Specific projects identified to move forward will require further refinement. A Phase schedule will be defined in the planning phase.

Phase	Cost
Plan	-
Design	-
Construct	20,824
Closeout	-
	20,824

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26C40370-SCW Implementation Fund	0	0	0	4,276	8,118	967	775	6,688	20,824
with inflation	0	0	0	4,276	8,118	967	775	6,688	20,824

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26C40370-SCW Implementation Fund	0	0	0	0	4,276	8,118	967	775	6,688	20,824

FUNDING SOURCES

(in thousands $)

SCVWD Safe, Clean Water Fund	20,824
Total	20,824

OPERATING COST IMPACTS

Not Available

USEFUL LIFE: Not Available

Feasibility Studies

Project	**Watershed Habitat Enhancements**
Program	Water Resources Stewardship
Priority No.	N/A
Project No.	62044001
District Contact	Ngoc Nguyen nnguyen@valleywater.org

Aerial view looking downstream of the Ogier Pond complex

PROJECT DESCRIPTION

This project provides for feasibility studies of possible habitat enhancements at the Ogier Ponds and Metcalf Ponds along Coyote Creek and an evaluation and determination of priority for addressing various fish passage barriers along Stevens Creek. This project accomplishes the following objectives:

- Enhance a healthy steelhead trout and salmon population in the Coyote Creek watershed.
- Provide adequate passage for adult steelhead trout to reach suitable spawning and rearing habitat and for out-migration of juveniles along Stevens Creek.

PROJECT LOCATION

Project Location

SCHEDULE & STATUS

April 2017 to June 2019

Phase	Cost
Plan	2,249
Permits	-
Design	-
Construct	-
Closeout	-
	2,249

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
62044001-Watershed Habitat Enhancements	24	1,167	1,082	0	0	0	0	0	2,273
with inflation	24	1,167	1,082	0	0	0	0	0	2,273

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
62044001-Watershed Habitat Enhancements	90	1,167	66	1,016	0	0	0	0	0	2,273

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed & Stream Stewardship Fund	2,273
Other Funding Sources	0
Total	2,273

OPERATING COST IMPACTS

No operating impacts are anticipated from this project because this is a feasibility study.

USEFUL LIFE: N/A

Mitigation

Project	**SMP Mitigation Stream and Watershed Land Preservation**
Program	Water Resources Stewardship – Mitigation
Priority No.	99
Project No.	62184001
District Contact	Vincent Gin vgin@valleywater.org

Creek-side settings such as this will be used for stream and watershed land preservation

PROJECT DESCRIPTION

This project preserves streams and watershed lands in the Santa Clara Basin and implements appropriate restorations in these lands to accomplish the following objectives:

- Provide 71 acres of Stream Maintenance Program (SMP) mitigation credits through preservation of approximately 720 to 950 acres of streams and watershed lands to provide long-term protection of unique and valuable local stream resources and watersheds, in a largely self-sustaining setting. Approximately 108 acres of the total land preservation will be for protection of riparian and upland habitats that are known to support California red-legged frogs and Western pond turtles.
- Provide approximately 10 acres of SMP mitigation credits through environmental restoration on the lands acquired.
- Seek opportunities to partner with other organizations to accomplish the project objectives.

PROJECT LOCATION

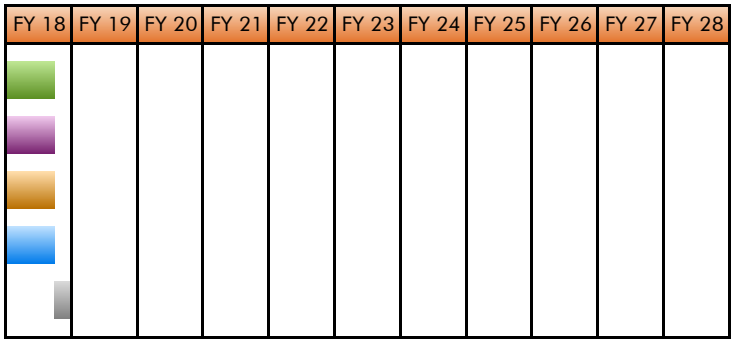
The project will purchase multiple sites for preservation in Santa Clara Basin as they become available.
No map is provided.

SCHEDULE & STATUS

July 2003 to June 2018

Some environmental tasks in the planning phase continue thru construction. Land acquisition is shown in the design phase, with restoration of site habitat shown in the construction phase.

Phase	Cost
Plan	2,020
Permits	1,012
Design	9,600
Construct	1,758
Closeout	20
	16,734



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
62184001-SMP Mitigation Stream and Watershed Land Preservation	14,875	1,859	0	0	0	0	0	0	16,734
with inflation	14,875	1,859	0	0	0	0	0	0	16,734

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
62184001-SMP Mitigation Stream and Watershed Land Preservation	16,224	510	0	0	0	0	0	0	0	16,734

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	16,734
Other Funding Source	0
Total	16,734

OPERATING COST IMPACTS

Operating cost will vary, depending on the type of acquisition ownership and requirements for maintenance of each site. The Stevens Canyon Ranch Conservation Easement was acquired in December 2006 and there are no operating impacts to the District. The property owner, Mid-Peninsula Regional Open Space District, is responsible for maintenance and management of the site.

USEFUL LIFE: 50+ Years

Buildings and Grounds

Building and Grounds Capital Improvements

BUILDINGS AND GROUNDS OVERVIEW

The District's Almaden-Winfield campus occupies nearly 50 acres along Almaden Expressway in the City of San Jose. The District manages the campus to ensure a healthful and safe work environment for employees and visitors. The campus includes 10 buildings, multiple parking lots, a corporation yard, landscaping, and other appurtenances.

With most of the buildings on campus over 30 years old, the rehabilitation needs have steadily increased in recent years. The District administers an asset management program for its buildings and grounds infrastructure that includes a schedule for maintenance and rehabilitation to ensure that each facility functions as intended over its useful life.

Major Capital Improvements Identified in the CIP

- Almaden & Winfield Campus Small Capital Improvements
- Headquarters Operations Building

PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to rate the buildings and grounds projects against other types of capital improvements. The priority criteria used are included in Appendix A.

Financial analysis of the following funding sources for buildings and grounds capital improvements was conducted to determine if there are limitations to funding all the proposed capital projects.

- Watershed and Stream Stewardship Fund
- General Fund
- Water Utility Enterprise Fund

Results of this year's prioritization process and financial analysis are summarized in Appendix B. The process concluded that the Almaden and Winfield Campus Small Capital Improvements will continue to be funded at $2 million per year to meet the higher priority Buildings and Grounds needs. The first of the projects from the Campus Master Plan began in FY 2012-13 and the Headquarters Operations Building was added to the FY 2015-19 CIP.

Building and Grounds Capital Improvements

The following table is a project funding schedule for buildings and grounds capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

Buildings and Grounds Capital Improvements ($K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
60204016	Almaden and Winfield Campus, Small Capital Improvements	n/a	2,046	-	2,072	2,147	2,221	2,300	2,381	28,246	41,413
60204032	Headquarters Operations Building	20	0	-	-	2,180	3,880	7,084	4,985	-	18,149
	TOTAL	20	2,046	-	2,072	4,327	6,101	9,384	7,366	28,246	59,562

FY 2017-18 Funds to be reappropriated

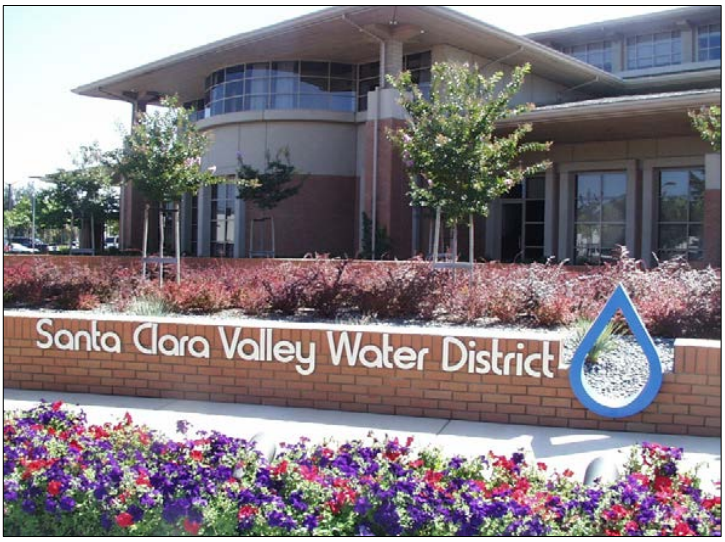
The following table shows funding requirements from each funding source for buildings and grounds capital improvements.

Buildings and Grounds – Funding Sources ($K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
11	General Fund	20	2,046	-	2,072	4,327	6,101	9,384	7,366	28,246	59,562
	TOTAL	20	2,046	-	2,072	4,327	6,101	9,384	7,366	28,246	59,562

FY 2017-18 Funds to be reappropriated

Project	**Almaden and Winfield Campus, Small Capital Improvements**
Program	Buildings and Grounds
Priority No.	73
Project No.	60204016
District Contact	Mike Cressap MCressap@valleywater.org

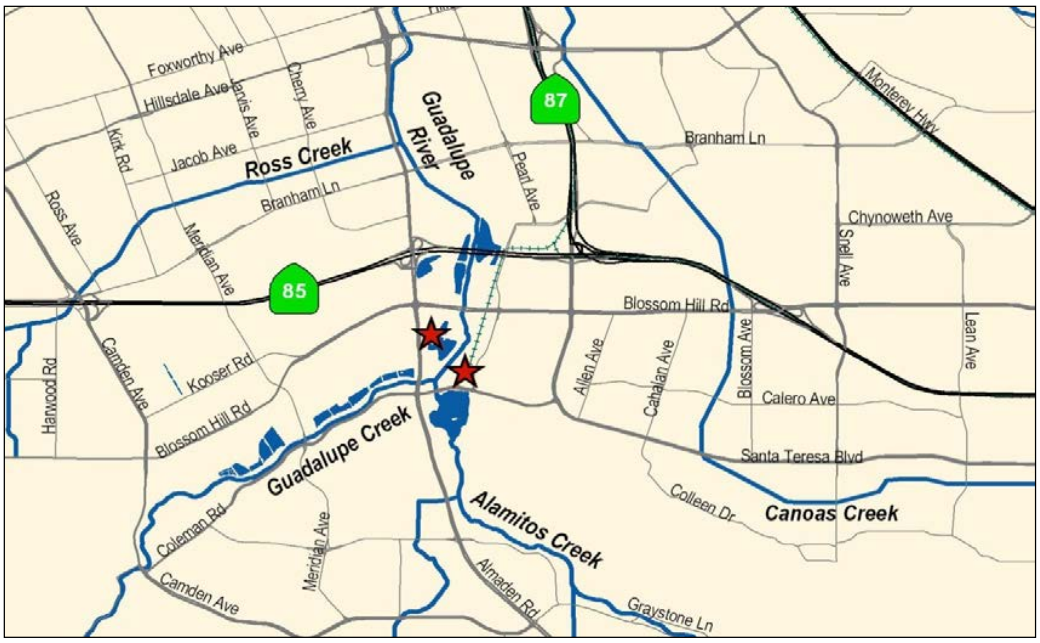


Front view of the Headquarters building at the Almaden Campus

PROJECT DESCRIPTION

This project reserves funding for capital maintenance and replacement of buildings, grounds, and facilities on the Almaden and Winfield campus, to provide a healthy and safe environment for staff and visitors.

PROJECT LOCATION



★ Project Location

SCHEDULE & STATUS

Improvements will be managed on an as-needed basis throughout the year.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a											

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60204016-Almaden and Winfield Campus, Small Capital Improvements	n/a	2,000	2,072	2,000	2,000	2,000	2,000	20,000	32,072
with inflation	n/a	2,000	2,072	2,147	2,221	2,300	2,381	28,246	41,366

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
60204016-Almaden and Winfield Campus, Small Capital Improvements	n/a	2,046	0	2,072	2,147	2,221	2,300	2,381	28,246	41,412

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD General Fund	41,412
Other Funding Source	0
Total	**41,412**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs. The purpose of these maintenance projects is to avoid unnecessary financial impact caused by building shut-down and work stoppage.

USEFUL LIFE: Not Available

Project	**Headquarters Operations Building**
Program	Buildings and Grounds
Priority No.	65
Project No.	60204032
District Contact	Katherine Oven KOven@valleywater.org

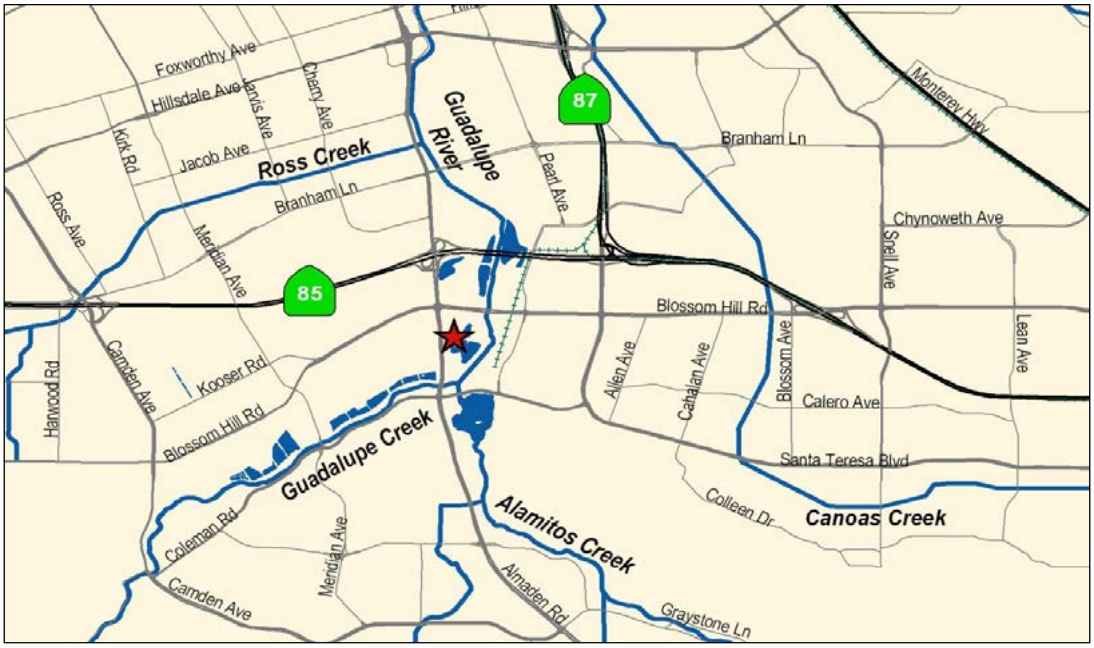
Existing Maintenance Building

PROJECT DESCRIPTION

This project plans, designs, and constructs a new operations building to replace the existing facility that has extensive deficiencies throughout. This project accomplishes the following objectives:

- Replace the Maintenance Office Building to provide a safe and healthy work environment and to meet code or regulatory requirements.
- Provide adequate and sufficient space to enable the District to efficiently perform its core business.

PROJECT LOCATION

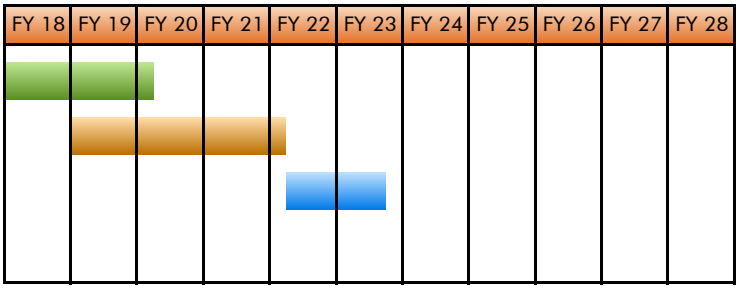


★ Project Location

SCHEDULE & STATUS

July 2014 to June 2022

Phase	Cost
Plan	3,463
Design	1,990
Construct	9,880
Closeout	23
	15,356



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60204032-Headquarters Operations Building	20	0	0	1,996	3,400	5,940	4,000	0	15,356
with inflation	20	0	0	2,180	3,880	7,084	4,985	0	18,148

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
60204032-Headquarters Operations Building	20	0	0	0	2,180	3,880	7,084	4,985	0	18,148

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD General Fund	18,148
Other Funding Sources	0
Total	18,148

OPERATING COST IMPACTS

Operating costs will be determined during the design phase.

USEFUL LIFE: Not Available

Information Technology

Information Technology Capital Improvements

INFORMATION TECHNOLOGY OVERVIEW

The District relies on its software systems and technology infrastructure to help manage its core responsibilities of water supply, flood protection, and environmental stewardship. Recognizing the importance of Information Technology to its success, the District completed the Information Systems Master Plan (ISMP) in 2012. The ISMP is an 8-year plan consisting of 32 capital and non-capital improvement projects.

In 2014, the Information Technology Capital Fund was created. It accounts for the costs to aquire, and install capital information technology projects with District-wide benefit. Projects include acquisition and replacement of computers, networks, and communications systems as well as major investments in enterprise software systems.

Costs are billed to user departments as Intra-District Computer Equipment Charges. Billing rates will be set to smooth charges over time by recovering current costs and accumulating reserves for major planned future projects. Current year charges or a combination of current year charges and reserves may be used to fund authorized projects. The purpose of this fund is to provide adequate resources while avoiding peaks and valleys in charges to user departments.

Major Capital Improvements Identified in the CIP

- Data Consolidation
- Information Technology Disaster Recovery
- PeopleSoft System Upgrade and ERP System Implementation
- Vena Software Implementation
- Software Upgrades & Enhancements
- WTP-WQL Network Equipment

PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to rate the information technology projects against other types of capital improvements. The priority criteria used are included in Appendix A.

Financial analysis of the Information Technology Capital Fund was conducted to determine if there are limitations to funding the planned capital projects. Results of this year's prioritization process and financial analysis are summarized in Appendix B. Funding needs for approved Information Technology projects can be met.

Information Technology Capital Improvements

The following table is a project funding schedule for information technology capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

Information Technology Capital Improvements ($K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
73274009	Data Consolidation	661	279	178	83	-	-	-	-	-	1,023
73274001	IT Disaster Recovery	1,955	441	441	-	-	-	-	-	-	2,396
60274062s	PeopleSoft System Upgrade & Expansion	7,077	5,070	6,147	3,658	3,090	-	-	-	-	18,895
73274008	Software Upgrades & Enhancements	1,233	611	269	434	958	941	429	2,358	11,304	18,268
73274007	Vena Software Implementation	1,000	157	-	-	-	-	-	-	-	1,157
95274003	WTP-WQL Network Equipment	920	1,301	33	503	192	-	101	1,588	8,180	12,785
	TOTAL	12,846	8,677	7,068	4,678	4,240	941	530	3,946	19,484	55,342

FY 2017-18 Funds to be reappropriated

The following table shows funding requirements from each funding source for information technology capital improvements.

Information Technology – Funding Sources ($K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
61	Water Utility Enterprise Fund	920	1,301	33	503	192	-	101	1,588	8,180	12,785
11	General Fund	1,199	-	-	-	-	-	-	-	-	1,199
73	Information Technology Fund	10,727	7,376	7,035	4,175	4,048	941	429	2,358	11,304	41,358
	TOTAL	12,846	8,677	7,068	4,678	4,240	941	530	3,946	19,484	55,342

FY 2017-18 Funds to be reappropriated

Project	**Data Consolidation**
Program	Information Technology
Priority No.	34
Project No.	73274009
District Contact	Sudhanshu Tikekar STikekar@valleywater.org

No Photo is provided for this project.

PROJECT DESCRIPTION

This project plans, designs, and implements improvements to Data Consolidation to accomplish the following objectives:

- Implement an Enterprise Content Management system with strong Business Intelligence.
- Move from an applications-centric model to a data-centric model, thereby removing silos of data stores.
- Information management for big data. Manage data as a strategic, core asset, with ongoing process and management control for big data analytics.
- High-Performance analytics for big data. Gain rapid insights from big data and the ability to solve increasingly complex business problems.
- Reduce the overall data footprint.

PROJECT LOCATION

No Map is provided for this project

SCHEDULE & STATUS

July 2015 to June 2019

Phase	Cost
Plan	-
Design	-
Construct	973
Closeout	-
	973

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274009-Data Consolidation	71	691	261	0	0	0	0	0	1,023
with inflation	71	691	261	0	0	0	0	0	1,023

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
73274009-Data Consolidation	661	279	178	83	0	0	0	0	0	1,023

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Information Technology Fund	1,023
Other Funding Sources	0
Total	1,023

OPERATING COST IMPACTS

Ongoing annual costs will need to be determined and be based on implemented solutions.

USEFUL LIFE: Not Available

Project	**Information Technology Disaster Recovery**
Program	Information Technology
Priority No.	46
Project No.	73274001
District Contact	Sudhanshu Tikekar STikekar@valleywater.org

Existing Data Center that houses critical servers supporting the District's normal operations

PROJECT DESCRIPTION

This project plans and designs improvements to Information Technology to accomplish the following objectives:

- Enable coordinated, rapid recovery from a disaster.
- Reduce the District's business risk exposure.

PROJECT LOCATION

No Map is provided for this project

SCHEDULE & STATUS

July 2014 to December 2018

Phase	Cost
Plan	14
Design	12
Construct	1,888
Closeout	-
	1,955

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274001-Information Technology Disaster Recovery	90	1,865	0	0	0	0	0	0	1,955
with inflation	90	1,865	0	0	0	0	0	0	1,955

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
73274001-Information Technology Disaster Recovery	1,955	441	441	0	0	0	0	0	0	2,396

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds the projected cost of the project by approximately $441,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

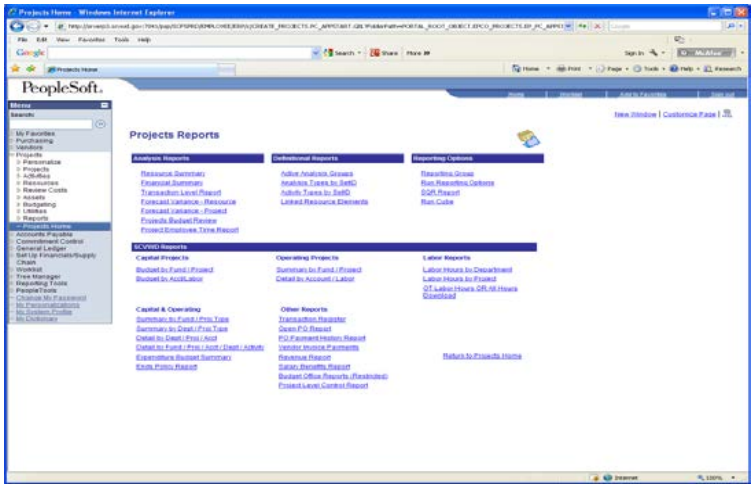
SCVWD Information Technology Fund	2,396
Other Funding Sources	0
Total	2,396

OPERATING COST IMPACTS

Ongoing annual costs will need to be determined and be based on implemented solutions.

USEFUL LIFE: Not Available

Project	**PeopleSoft System Upgrade and ERP System Implementation**
Program	Information Technology
Priority No.	63
Project No.	60274062
District Contact	Sudhanshu Tikekar STikekar@valleywater.org



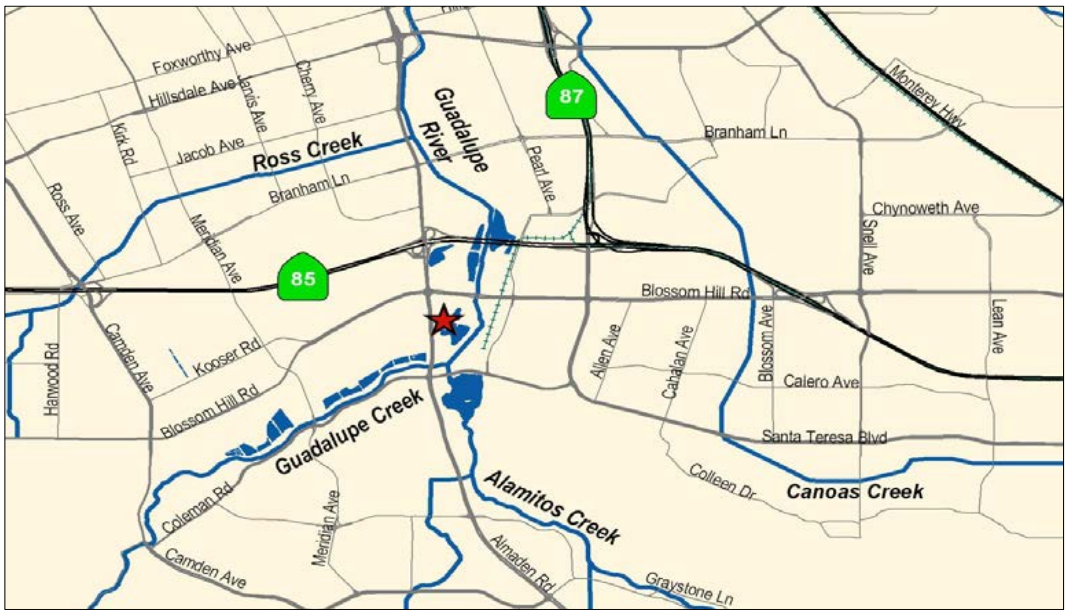
PeopleSoft Reports page from the District's intranet

PROJECT DESCRIPTION

This project selects and implements a new cloud-based, integrated, proven and state-of-the-art ERP system to replace the current out-of-date ERP (PeopleSoft) application. Below are the objectives:

- Provide up-to-date functionalities for Finance, HR, Payroll, Contract, Procurement, Inventory, and Warehouse areas, and to reengineer business processes to ensure that the District takes full advantage of the software's inherent capabilities.
- Increase productivity by eliminating redundancy and manual processes for work-arounds for current PeopleSoft system.
- Increase operational effectiveness, reduce costs and improve management decision-making processes by increasing the ability to access and analyze data.
- Ensure system security complies with industry standards.
- Minimize reliance on District's IT resources for enhancements, support, and maintenance.

PROJECT LOCATION

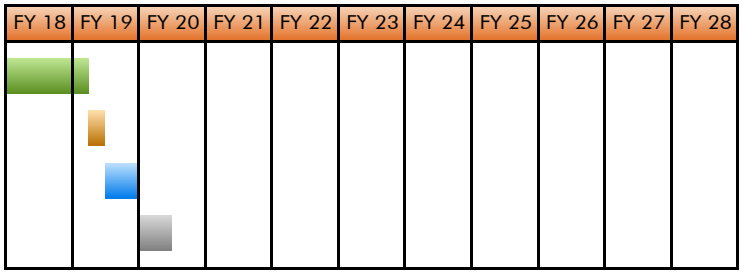


★ Project Location

SCHEDULE & STATUS

July 2013 to December 2019

Phase	Cost
Plan	2,300
Design	1,999
Construct	10,890
Closeout	2,830
	18,636



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60274062-PeopleSoft System Upgrade and ERP System Implementation	1,199	0	0	0	0	0	0	0	1,199
with inflation	1,199	0	0	0	0	0	0	0	1,199
73274002-PeopleSoft System Upgrade and ERP System Implementation	2,501	2,300	9,806	2,830	0	0	0	0	17,437
with inflation	2,501	2,300	9,806	3,090	0	0	0	0	17,697
TOTAL	3,700	2,300	9,806	2,830	0	0	0	0	18,636
with inflation	3,700	2,300	9,806	3,090	0	0	0	0	18,896

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
60274062-PeopleSoft System Upgrade and ERP System Implementation	1,199	0	0	0	0	0	0	0	0	1,199
73274002-PeopleSoft System Upgrade and ERP System Implementation	5,878	5,070	6,147	3,659	3,090	0	0	0	0	17,697
TOTAL	7,077	5,070	6,147	3,659	3,090	0	0	0	0	18,896

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

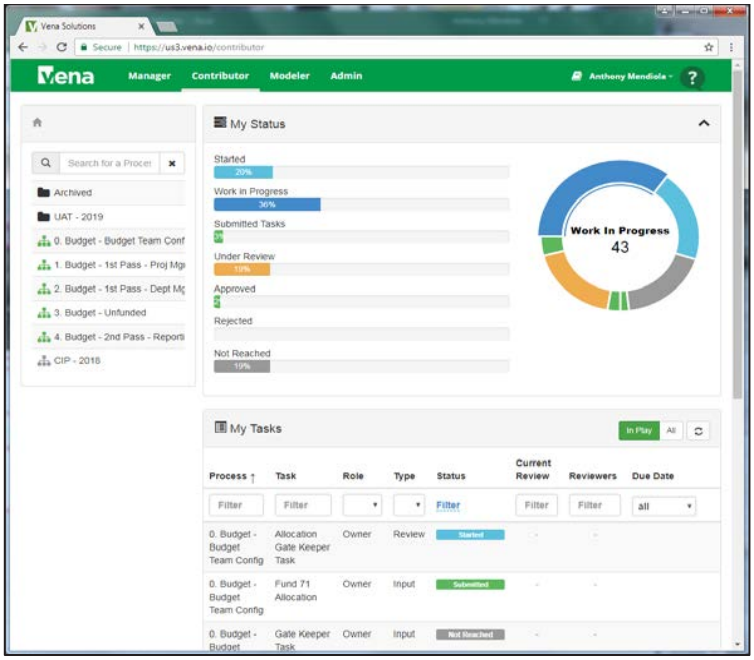
SCVWD General Fund	1,199
SCVWD Information Technology Fund	17,697
Total	18,896

OPERATING COST IMPACTS

Upon completion of this project, one full-time employee will be needed for expanded technical support for new system modules and features and to continue with operational refinements, enhancements, integrations, report development, etc. on an on-going annual basis. PeopleSoft software maintenance fees are required on an annual recurring basis and projected to increase by three percent each year. The projected annual software maintenance fee for FY 2019 is $164,324.

USEFUL LIFE: 5 Years

Project	**Vena Software Implementation**
Program	Water Supply – Transmission
Priority No.	63
Project No.	73274007
District Contact	Sudhanshu Tikekar Stikekar@valleywater.org



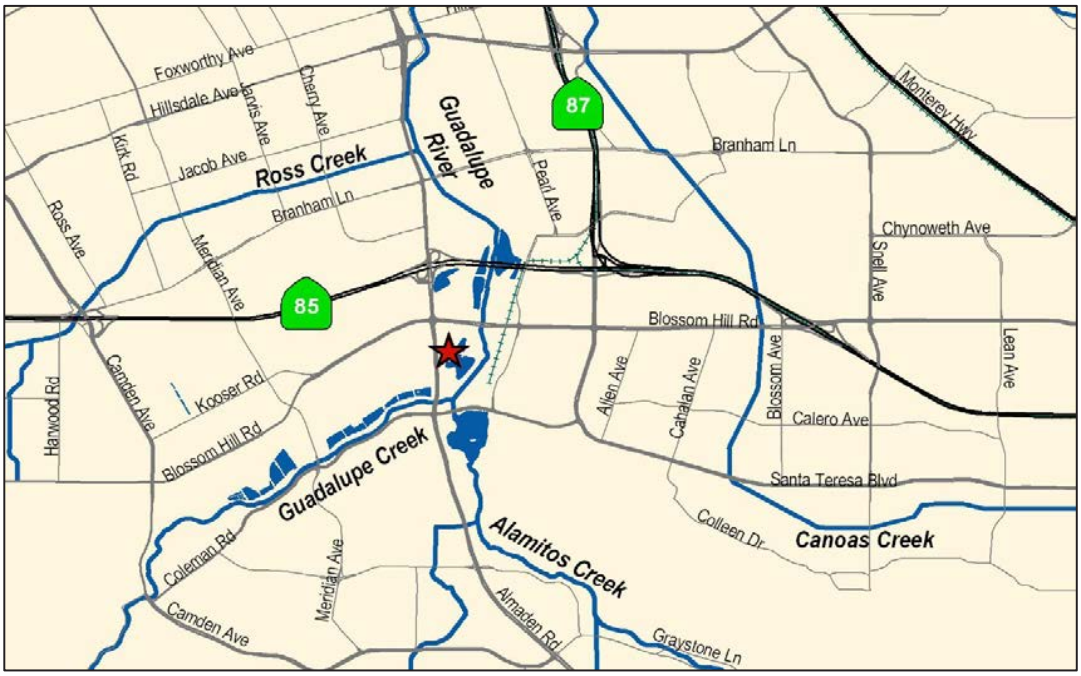
View of end-user landing page in Vena system

PROJECT DESCRIPTION

This project plans, designs, and implements new financial software to accomplish the following objectives:

- Implement a new budgeting module to manage and enhance the District's budgeting process;
- Implement a new CIP module, for improving current CIP process;
- Implement a financial long-term forecasting module to replace current forecasting spreadsheets;
- Build integration between each module and the current ERP System.

PROJECT LOCATION

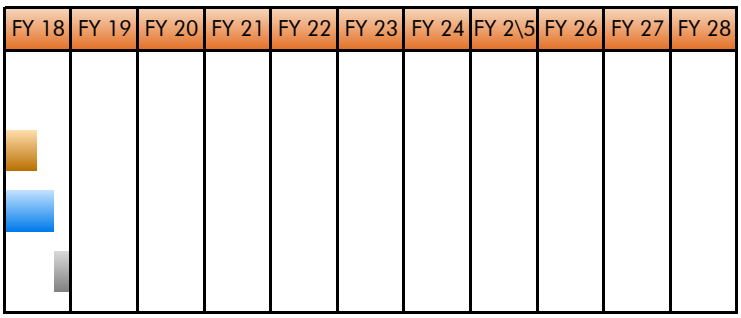


★ Project Location

SCHEDULE & STATUS

July 2013 to June 2018

Phase	Cost
Plan	-
Design	-
Construct	252
Closeout	-
	1,157



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274007-Vena Software Implementation	905	252	0	0	0	0	0	0	1,157
with inflation	905	252	0	0	0	0	0	0	1,157

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
73274007-Vena Software Implementation	1,000	157	0	0	0	0	0	0	0	1,157

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Information Technology Fund	1,157
Other Funding Sources	0
Total	1,157

OPERATING COST IMPACTS

Annual licensing and maintenance will be $95,000 per year beginning in FY 2019.

USEFUL LIFE: 10 years

Project	Software Upgrades & Enhancements
Program	Information Technology
Priority No.	54
Project No.	73274008
District Contact	Sudhanshu Tikekar STikekar@valleywater.org

Existing District systems to be upgraded and enahanced

PROJECT DESCRIPTION

This project provides upgrade and enhancement services to existing District systems, including GIS, Maximo, Oracle Development system, internal and external District websites, and related databases. Previously, software upgrades were budgeted to their individual respective maintenance and support projects. This new project aims to consolidate activities into a single project for better organization, planning and budgeting purposes (the exception is Peoplesoft which has its own upgrade project).

The objective of this project is to regularly upgrade existing software packages to:

- Reduce current risks associated with being on a software version that is no longer supported by the vendor and is running on outdated operating systems.
- Increase the level of service provided by the software with new functionalities.

PROJECT LOCATION

No Map is provided for this project

SCHEDULE & STATUS

July 2015 to June 2031

Phase	Cost
Plan	-
Design	-
Construct	13,179
Closeout	-
	13,500

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274008-Software Upgrades & Enhancements	964	611	703	877	825	360	1,892	7,268	13,500
with inflation	964	611	703	958	941	429	2,358	11,303	18,268

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
73274008-Software Upgrades & Enhancements	1,233	611	269	434	958	941	429	2,358	11,303	18,268

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Information Technology Fund	18,268
Other Funding Sources	0
Total	**18,268**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: Not Available

Project	**WTP-WQL Network Equipment**
Program	Information Technology
Priority No.	46
Project No.	95274003
District Contact	Sudhanshu Tikekar STikekar@valleywater.org

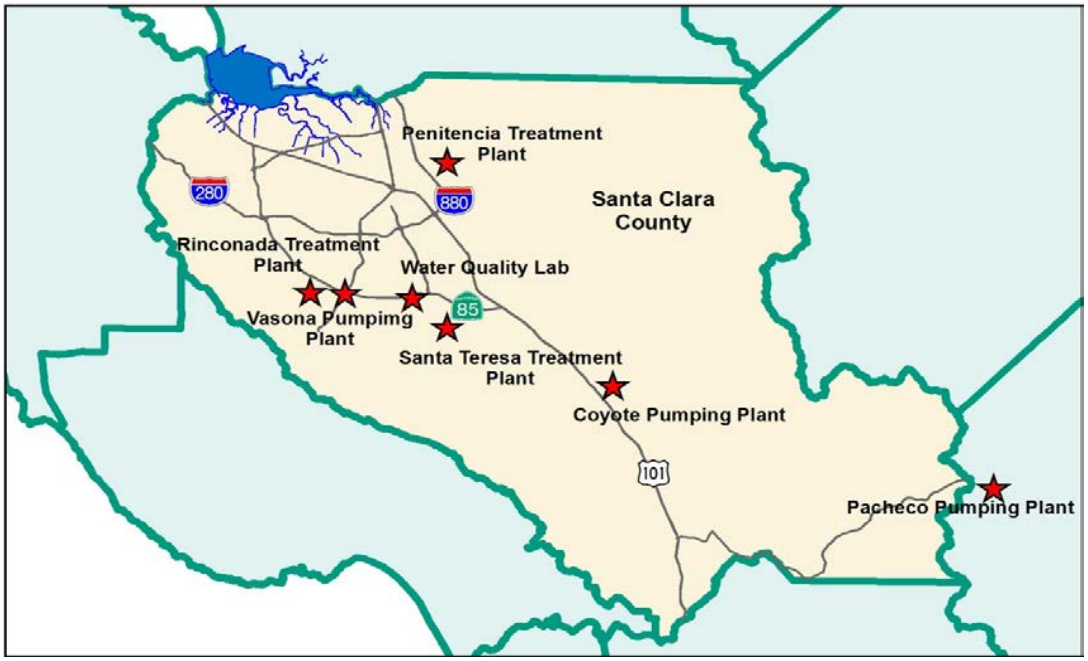
View of network equipment to be modernized at the Water Quality Lab

PROJECT DESCRIPTION

This project plans, designs, and implements upgrades to the existing network to ensure that the District has a current and robust computer network to accomplish the following objectives:

- Deliver greater access speeds.
- Restore vendor maintenance.
- Improve software application performance.
- Provide a path to meet future data communications needs.

PROJECT LOCATION



★ Project Location

SCHEDULE & STATUS

July 2014 to June 2032

Phase	Cost
Plan	-
Design	-
Construct	9,507
Closeout	-
	9,908

FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
95274003-WTP-WQL Network Equipment	867	1,321	536	176	0	85	1,274	5,649	9,908
with inflation	867	1,321	536	192	0	101	1,588	8,180	12,785

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
95274003-WTP-WQL Network Equipment	920	1,301	33	503	192	0	101	1,588	8,180	12,785

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Water Utility Enterprise Fund	12,785
Other Funding Sources	0
Total	12,785

OPERATING COST IMPACTS

Upon completion of this project operating costs are anticipated to increase by $37,000 beginning in FY 2033 with an increase of 3% each year after that to pay for hardware maintenance agreements.

USEFUL LIFE: 10 Years

Financial Planning

Financial Planning and Summary

CIP FINANCIAL PLANNING

Board policy regarding financial planning and budgeting provides the foundation for CIP financial planning. The policy states:

Executive Limitation EL-4, "Financial planning for any fiscal year shall be aligned with the Board's Ends, not risk fiscal jeopardy, and be derived from a multi-year plan."

> Executive Limitation EL-4.3, "A BAO shall include credible projection of revenues and expenses, separation of capital and operational items, cash flow, and disclosure of planning assumptions."
>
> Executive Limitation EL-4.4, "A BAO shall plan the expenditure in any budget period within the funds that are conservatively projected to be received or appropriated from reserves in that period."

KEY REVENUES SOURCES

Water Charges

- Water charges include a ground water production charge, which is equivalent to the basic user charge, and is associated with the benefit of managing groundwater supplies. The groundwater charge is applied to water extracted from the groundwater basin in Zones W-2 and W-5. The basic user charge is applied to other types of water delivered by the District. There are two rates: one for agricultural water and one for municipal and industrial water.
- A treated water surcharge, which is associated with the benefit of receiving treated water, is levied in addition to the basic user charge on water delivered from the District's water treatment plants.

Property Tax

Santa Clara County allocates property tax revenue to the District from ad valorem taxes levied on land within the county.

Special Parcel Tax

A special parcel tax, with a 2016 sunset, was approved by the voters in Santa Clara County in November 2000. This revenue source was restricted to financing the costs of the District's Clean, Safe Creeks and Natural Flood Protection Program. In November 2012 the special parcel tax was continued by voter approval to 2028. This revenue can be used for both the continuing Clean, Safe Creeks and new Safe, Clean Water programs.

Benefit Assessments

Benefit assessment revenue consists of levies approved by voters in 1986 and 1990 to support financing for flood control capital improvements. The ongoing budget amount is approximately 1.25 times the duly authorized annual debt service requirements for each Watershed.

Capital Reimbursements

Capital reimbursement revenues are from local, state and federal partners for capital projects carried on cooperatively by the District and its partners. The District fronts the partners' shares of capital expenditures and receives reimbursements from the partners at a later time.

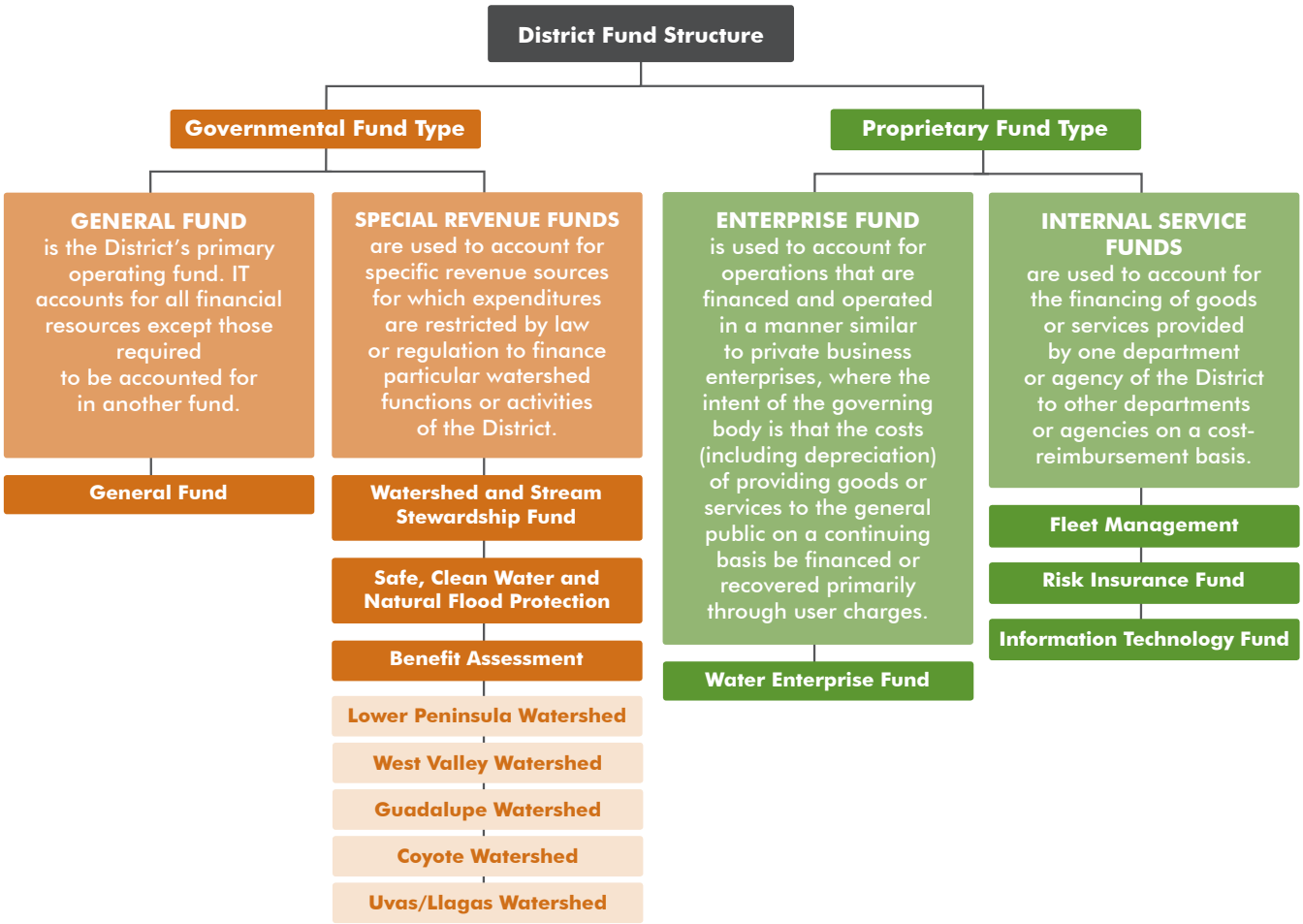
Interest

Interest is earned from the District's investment portfolio.

Financial Planning and Summary

District Fund Structure

The District's revenue sources are organized into eight funds. Each fund has specific revenue sources according to their intended purposes, and each fund is an independent accounting entity with a self-balancing set of accounts comprised of its assets, liabilities, fund equity, revenue, and expenditures or expenses, as appropriate.



Revenue by Fund ($K)

FUND NAME	FY17 Budget	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Water Utility Enterprise	259,637	258,072	277,090	321,267	367,898	396,552	435,790	477,438	520,075	564,428	594,690	625,416
Watershed Stream Stewardship	79,293	110,883	90,906	87,644	85,816	88,306	90,482	93,840	102,549	100,479	104,046	107,363
Safe, Clean Water and Natural Flood Protection	45,096	57,704	54,814	67,617	62,701	59,034	53,925	53,013	54,664	56,284	58,160	60,189
Benefit Assessment	14,785	14,778	14,777	13,445	13,456	13,454	13,444	13,443	6,850	6,855	6,852	6,855
General	7,633	7,596	7,762	8,035	8,317	8,610	8,913	9,226	9,551	9,886	10,234	10,594
Internal Service	435	249	233	227	228	223	259	286	278	284	324	377
TOTAL	406,878	449,281	445,582	498,234	538,417	566,178	602,813	647,247	693,966	738,216	774,308	810,795

Note: Internal Service Funds (ISF) is the combination of the Fleet Management, IT Capital, and Risk Funds

Financial Planning and Summary

Revenue Projections

The District regularly updates the projected revenues based on the best information available.

- Revenues from water charges are estimated based on projections of water demand for residential, commercial and industrial, and agricultural consumption combined with rates per acre-foot. Rates are set at a level that will provide revenue needed to meet operating and capital needs.
- Revenues from property taxes, special parcel taxes, and benefit assessments are estimated based on projection of growth in assessed value and number of developed parcels in Santa Clara County.
- Interest earnings are estimated based on the projected average cash balances during the fiscal year and expected yield from the District's investment portfolio.
- Revenue from capital reimbursements partnerships are estimated based on the terms of agreements executed by the District and its partners.

Expenditure Projections

The District regularly updates the operation and capital expenditures based on the best information available.

Each capital project cost estimate includes the yearly expenditures through completion based on the project's scope and schedule. The expenditures are monitored regularly and updated when necessary, e.g. expenditures are updated when a project's scope changes. A management review process is enforced to ensure only justified expenditure changes are approved.

Operation cost projections for the next 15 years are updated annually and are based on assumptions derived from the District's strategic plans, including the impact of completed capital projects. Capital and operations expenditure projections are the foundation for the development of the District's budget.

Financial Analysis

The District regularly performs financial analysis to comply with the Board's Financial Planning/Budgeting Policy. The District uses sophisticated financial models to perform the analysis for each fund. The projected operation expenditures, capital expenditures, and revenues for the next ten years are incorporated into the financial models to analyze the health of each fund under various economic scenarios. This process assures that funds will be available when needed to implement the CIP.

The financial analysis generates alternatives for funding capital projects based on the available yearly revenues, from all sources, allocated to the capital program, and the debt financing capacity of each fund. The financial analysis establishes the parameters within which the capital project schedule is developed.

Debt Projections and Debt Ratios

Debt is managed at the District depending on the type of District business involved. The SCW program approved by the voters in 2012 includes the authority to issue debt against future revenue in order to accelerate completion of projects sooner. Debt service on outstanding benefit assessment debt is funded by benefit assessments levied on property owners in the county.

The water utility business, on the other hand, uses a combination of short-term and long-term debt financing in conjunction with pay-as-you-go financing to lessen impacts to the water rate caused by fluctuations in capital funding needs. In the 1984 general election, Measure B was passed by the voters, which gave the District's water utility the authority to issue bonds on an "as required" basis. Debt service on outstanding debt is paid from water revenues. Bond covenants stipulate that the District must maintain a 1.25 debt coverage ratio on all parity bonds. The long-term financial analysis targets a debt coverage ratio of 2.0, which helps establish the parameters for capital planning that ensure bond covenants will be met.

The District currently enjoys credit ratings that are among the highest for a water-related governmental entity in the state of California, which helps keep interest costs borne by the District at a minimum.

Relationship between the Operating Budget and CIP

Whenever the District commits to capital improvements, there is a potential for associated long-range commitment of operating funds. For example, if 20-year bonds are issued to finance capital needs, then the operating funds will need to budget debt service payments for the next two decades. For this reason, it is important to evaluate capital commitments in the context of their long-range operating impact.

In addition to the long-range debt service payments, some capital projects affect future operating budgets either positively or negatively due to an increase or decrease in maintenance and operation costs. Such impacts vary widely from project to project and are evaluated individually during the project development stage. The District is committing to a potential change in the operating budget when a capital project is approved.

The projected debt service payments and the positive or negative operating budget impacts are important factors considered in the District's financial analysis.

This chart identifies the operating budget impacts to each fund from projected debt service payments. The debt service payment in the Watershed Stream Stewardship Fund is a total of payments associated with each individual watershed.

Debt Payment Schedule ($K)

Fund	FY18	FY19	FY20	FY21	FY22	FY23
General Fund	472	538	539	539	536	537
Benefit Assessment Fund	12,162	12,162	11,085	11,094	11,090	11,086
Safe, Clean Water and Natural Flood Protection Fund	2,417	5,897	7,020	7,020	19,215	21,570
Water Utility Enterprise Fund	31,692	41,758	51,931	65,462	77,595	94,960
Information Technology Fund	-	-	-	-	-	-
TOTAL	46,743	60,355	70,576	84,115	108,436	

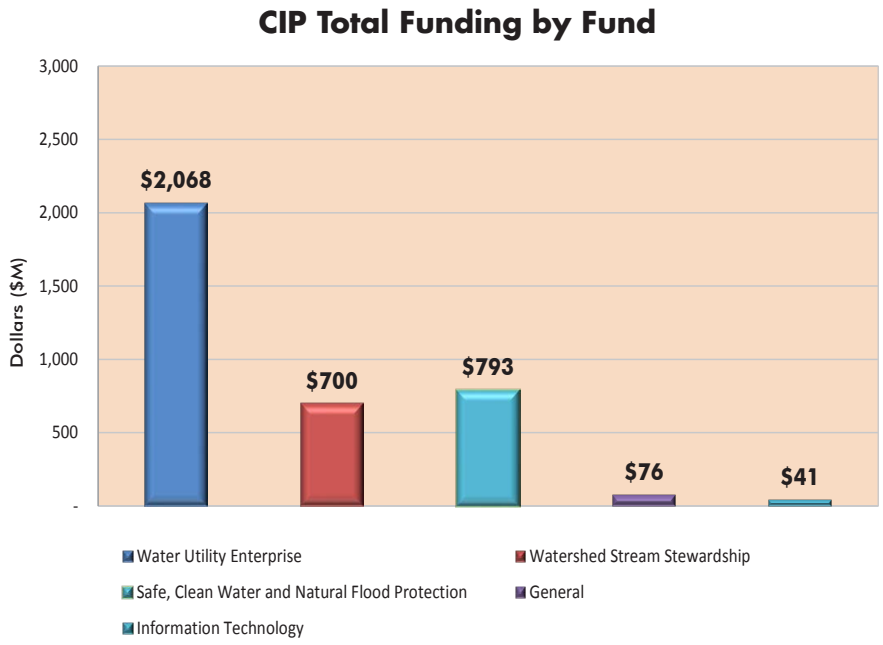
This chart identifies the net operating budget impacts to each fund resulting from annual maintenance and/or operating cost for newly completed capital projects. Additional information regarding operating impacts related to individual projects can be found on the project pages.

Estimated Operating Impacts ($K)

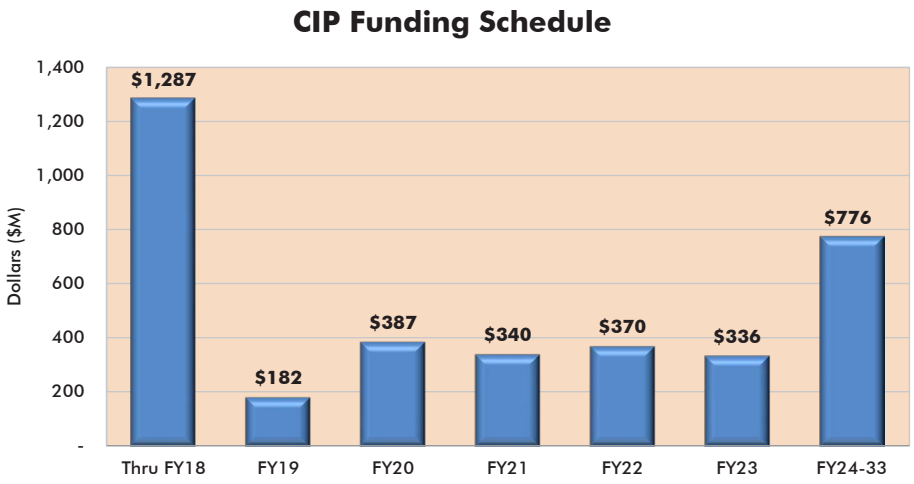
Fund	FY18	FY19	FY20	FY21	FY22	BEYOND
General Fund	-	-	-	-	-	-
Watershed Stream Stewardship Fund	35	4,035	35	60	4,070	70
Safe, Clean Water and Natural Flood Protection Fund	-	50	150	150	150	730
Water Utility Enterprise Fund	25	33	(167)	(229)	1,241	1,358
Information Technology Fund	164	169	174	179	185	190
TOTAL	224	4,287	192	160	5,646	2,348

CIP FUNDING SUMMARY

Of the $3.678 billion in total District funding for current and future projects, the Board appropriated $1.287 billion in prior years through June 30, 2018 (the end of Fiscal Year 2017-18). This year's CIP process identified additional funding needs of $2.391 billion to complete the projects in the CIP, with $182 million allocated in Fiscal Year 2018-19 and a total of $2.209 billion proposed for future years.



The needed $3.678 billion to implement the 61 projects as defined in the CIP are funded by four of the District's seven Funds.



The following chart shows the funding schedule for the $3.678 billion to implement the 61 projects.

CIP Project Funding Schedule for Water Utility Enterprise Fund ($K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Almaden Dam Improvements	12,520	520	-	3,518	829	525	24,963	18,940	393	62,208
Anderson Dam Seismic Retrofit (C1)	31,586	7,932	-	10,562	152,391	116,197	141,234	89,533	1,458	550,893
Calero and Guadalupe Dams Seismic Retrofits	26,808	3,349	3,955	1,911	1,638	9,914	30,332	42,072	55,880	171,904
Coyote Pumping Plant ASD Replacement	-	536	436	698	814	3,244	6,416	4,486	791	16,985
Coyote Warehouse	2,940	2,981	-	1,034	471	143	78	-	-	7,647
Dam Seismic Stability Evaluation	18,812	-	33	1,060	667	456	5,963	498	1,941	29,397
Small Capital Improvements, San Felipe Reach 1-3	n/a	2,457	-	3,702	2,104	2,706	92	-	34,750	45,811
10-Year Pipeline Rehabilitation (FY18-FY27)	-	27,170	-	13,866	17,342	20,355	8,260	4,885	33,591	125,469
FAHCE Implementation	-	-	-	-	-	4,739	4,379	14,691	121,299	145,108
Pacheco/Santa Clara Conduit Right of Way Acquisition	1,861	1,034	-	1,514	385	-	-	-	-	4,794
SCADA Remote Architecture & Communications Upgrade	776	186	362	250	306	313	1,026	1,072	3,662	7,591
Small Capital Improvements, Raw Water Transmission	n/a	321	-	849	84	-	92	-	3,226	4,572
Small Capital Improvements, Treated Water Transmission	n/a	-	-	-	152	-	-	-	-	152
Treated Water Isolation Valves	-	-	-	529	795	6,891	-	-	-	8,215
Westside Retailer Interties	-	80	-	67	358	1,385	114	-	-	2,004
Vasona Pumping Plant Upgrade	119	712	480	549	1,163	548	17,541	586	-	21,218
PWTP Residuals Management	-	-	-	-	-	742	1,550	8,279	-	10,571
RWTP Residuals Remediation	21,520	22,053	7,808	-	1,222	14,301	2,421	2,350	821	64,688
RWTP Reliability Improvement	116,221	48,144	176	46,979	47,629	30,116	143	-	-	289,232
RWTP Treated Water Valves Upgrade	8,424	170	1	9	209	-	-	-	-	8,812
Small Capital Improvements, Water Treatment	n/a	2,512	-	3,578	7,659	7,682	3,872	315	16,943	42,561
Expedited Purified Water Program (EPWP)	17,650	2,727	1,147	3,288	6,339	7,593	32,637	64,979	78,253	213,466
Long-Term Purified Water Program Elements	-	-	-	-	-	-	-	26,356	83,909	110,265
South County Recycled Water Pipeline	32,915	-	6,737	-	21,753	2,166	-	-	-	56,834
FAHCE Stevens Creek Fish Passage Enhancement - 90%	765	-	-	-	-	1,724	3,135	-	-	5,623
Metcalf Ponds Design & Construction	-	-	-	-	-	2,282	2,385	2,492	25,013	32,172
Ogier Ponds Design & Construction	-	-	-	-	-	-	1,193	1,246	14,224	16,663
WTP-WQL Network Equipment	920	1,301	33	503	192	-	101	1,588	8,180	12,785
TOTAL	293,837	124,185	21,168	94,466	264,502	234,022	287,927	284,368	484,334	2,067,640

FY 2017-18 Funds to be reappropriated

CIP Project Funding Schedule for Watershed and Stream Stewardship Fund ($K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Palo Alto Flood Basin Tide Gate Structure Improvements	1,200	458	763	1,317	1,999	7,333	119	-	-	12,426
Permanente Creek, SF Bay to Foothill Expressway	17,541	-	178	-	-	-	-	-	-	17,541
San Francisquito Creek, SF Bay thru Searsville Dam	4,064	-	-	-	-	-	-	-	-	4,064
San Francisquito Creek, Early Implementation	1,614	-	-	-	-	-	-	-	-	1,614
Canoas Creek, Rodent Damage Repair	8,517	-	1,092	-	-	-	-	-	-	8,517
Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 1	51,191	-	2,226	-	-	-	-	-	-	51,191
Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 2	58,402	-	1,640	17,474	349	365	417	-	-	77,007
Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 3	-	-	-	-	-	2,164	2,206	1,281	65,773	71,424
Cunningham Flood Detention Certification	8,287	1,841	-	1,290	235	34	-	-	-	11,687
Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	9,601	4,815	6,178	1,881	9,861	285	298	212	-	26,953
Lower Silver Creek, I-680 to N. Babb Rd (Reach 4 Planning)	2,371	-	-	-	-	-	-	-	-	2,371
Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	93,778	1,981	517	509	311	182	-	-	-	96,761
Lower Silver Creek, I-680 to Cunningham, Reimbursable (Reach 4-6)	2,912	-	965	-	-	-	-	-	-	2,912
Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps	8,970	1,116	-	-	-	-	-	-	-	10,086
Upper Penitencia Ck, Coyote Ck-Dorel Dr, LERRDs	8,544	-	4,957	-	-	-	-	-	-	8,544
Llagas Creek–Lower, Capacity Restoration, Buena Vista Road to Pajaro River	7,046	-	3,670	-	630	3,187	2,891	125	-	13,879
Llagas Creek–Upper, R5,6,&7b	-	-	-	-	18,221	6,652	-	-	-	24,873
San Francisco Bay Shoreline	14,067	2,721	207	-	-	-	-	-	-	16,788
San Francisco Bay Shoreline - Contribution	490	-	-	-	-	-	-	-	-	490
Shoreline Early Implementation	359	-	-	-	-	-	-	-	-	359
Watersheds Asset Rehabilitation Program	3,515	11,047	-	9,892	10,384	8,936	9,387	9,740	117,651	180,552
SMP Mitigation, Stream and Watershed Land Preservation	16,224	510	-	-	-	-	-	-	-	16,734
Stevens Creek Fish Barrier Removal - 100%	-	-	-	-	-	342	3,699	3,836	7,009	14,886
FAHCE Stevens Creek Fish Passage Planning - 10%	85	-	-	-	-	-	-	-	-	85
FAHCE Stevens Creek Moffett Ave Fish Ladder - 10%	-	-	-	-	-	149	211	-	-	360
FAHCE Stevens Creek Multi-Port Outlet at Dam - 10%	-	-	-	-	-	43	137	-	-	180
Ogier Ponds Design & Construction	-	-	-	-	-	-	1,193	1,246	14,224	16,663
Salt Ponds A5-11 Restoration	4,233	754	451	94	358	-	1,604	1,662	117	8,822

FY 2017-18 Funds to be reappropriated

Project Funding Schedule for Watershed and Stream Stewardship Fund ($K) (cont'd)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Watershed Habitat Enhancement Studies	90	1,167	66	1,016	-	-	-	-	-	2,273
TOTAL	323,101	26,410	22,910	33,473	42,348	29,672	22,162	18,102	204,774	700,042

FY 2017-18 Funds to be reappropriated

Project Funding Schedule for Safe, Clean Water and Natural Flood Protection Fund ($K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
IRP2 Additional Line Valves (A3)	-	-	-	1,090	673	9,826	-	-	-	11,589
Main & Madrone Pipelines Restoration (A1)	2,327	15,084	-	292	-	-	-	-	-	17,703
Permanente Creek, SF Bay to Foothill Expressway	56,750	16,909	-	5,281	-	-	-	-	-	78,940
San Francisquito Creek, SF Bay thru Searsville Dam (E5)	6,782	-	27	-	-	-	-	-	-	6,782
San Francisquito Creek - Construction, SF Bay to Middlefield Road (E5)	32,958	7,338	320	3,111	3,732	6,791	-	-	-	53,930
Sunnyvale East and West Channels	26,177	4,820	12,374	-	16,493	11,948	10,580	125	-	70,143
Guadalupe Rv–Upper, Fish Passage Mods	2,651	-	-	-	-	-	-	-	-	2,651
Guadalupe Rv–Upper, I-280 to SPRR (R6)	34,619	-	1,284	-	965	1,415	-	37	-	37,036
Guadalupe Rv–Upper, SPRR-Blossom Hill (R7-12)	64,589	18,294	17,682	6,516	16,563	6,523	3,257	2,656	-	118,398
Guadalupe Rv–Upper, Actuals chg to other proj numbers	7,887	-	-	-	-	-	-	-	-	7,887
Berryessa Ck, Calaveras-I-680 - Corps	35,666	-	12,683	-	-	-	-	-	-	35,666
Berryessa Ck, Calaveras-I-680 - Reimbursable	18,777	301	-	209	-	-	-	-	-	19,287
Coyote Creek, Montague Expressway to Tully Road (E3)	11,488	760	505	1,752	983	1,067	4,055	3,851	21,056	45,012
Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps (E4)	385	-	385	1,525	-	-	15,491	15,491	14,880	47,772
Llagas Creek–Upper, Reimbursable (E6b)	42,951	106	5,894	-	306	-	-	-	-	43,363
Llagas Creek–Upper, Corps Coordination (E6a)	40,893	2	13,700	-	13,436	12,755	5,252	249	600	73,187
Llagas Creek–Upper, Technical Studies	1,446	-	-	-	-	-	-	-	-	1,446
Llagas Creek–Upper, Design	20,652	2,046	-	5,240	828	285	298	312	326	29,987
San Francisco Bay Shoreline - EIA 11 Design & Partial Construction (E7)	7,794	751	-	6,722	3,382	-	-	-	-	18,649
San Francisco Bay Shoreline - Other EIAs Planning (E7)	3,756	1	1,529	-	689	1,141	716	-	-	6,303
Hale Creek Enhancement Pilot Study (D6)	945	1,306	23	2,580	-	-	-	-	-	4,831
Almaden Lake Improvements (D4.1a)	3,709	654	1,009	192	9,091	9,411	9,742	-	-	32,799
South Bay Salt Ponds Restoration (D8)	535	13	317	-	-	-	-	-	3,867	4,415
SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, Singleton)	3,664	224	933	392	-	-	-	-	-	4,280
Creek Bank Stability (ie. Comer Debris Basin (D6.2))	-	-	-	-	290	1,184	218	-	-	1,692
Creek Bank Stability (D6.1)	-	-	-	-	3,986	6,210	-	-	-	10,196
Regionally Significant Habitat Land Acquisition (D7)	-	-	-	-	-	724	749	775	6,688	8,936
TOTAL	427,401	68,609	68,665	34,902	71,417	69,280	50,358	23,496	47,417	792,880

FY 2017-18 Funds to be reappropriated

Financial Planning and Summary

Project Funding Schedule for General Fund ($K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Pacheco Reservoir Feasibility Study	-	2,250	-	12,809	-	-	-	-	-	15,059
Almaden and Winfield Campus, Small Capital Improvements	n/a	2,046	-	2,072	2,147	2,221	2,300	2,381	28,246	41,413
Headquarters Operations Building	20	-	-	-	2,180	3,880	7,084	4,985	-	18,149
PeopleSoft System Upgrade & Expansion	1,199	-	-	-	-	-	-	-	-	1,199
TOTAL	1,219	4,296	-	14,881	4,327	6,101	9,384	7,366	28,246	75,820

FY 2017-18 Funds to be reappropriated

Project Funding Schedule for Information Technology Fund ($K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Boardroom Technology Upgrade	-	818	-	-	-	-	-	-	-	818
Data Consolidation	661	279	178	83	-	-	-	-	-	1,023
IT Disaster Recovery	1,955	441	441	-	-	-	-	-	-	2,396
ERP System Implementation	5,878	5,070	6,147	3,658	3,090	-	-	-	-	17,696
Software Upgrades & Enhancements	1,233	611	269	434	958	941	429	2,358	11,304	18,268
Vena Software Implementation	1,000	157	-	-	-	-	-	-	-	1,157
TOTAL	10,727	7,376	7,035	4,175	4,048	941	429	2,358	11,304	41,358

FY 2017-18 Funds to be reappropriated

CIP Funding Schedule Summary for All Funds ($K)

FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Water Utility Enterprise	293,837	124,185	21,168	94,466	264,502	234,022	287,927	284,368	484,334	2,067,640
Watershed Stream Stewardship	323,101	26,410	22,910	33,473	42,348	29,672	22,162	18,102	204,774	700,042
Safe, Clean Water and Natural Flood Protection	427,401	68,609	68,665	34,902	71,417	69,280	50,358	23,496	47,417	792,880
General	1,219	4,296	-	14,881	4,327	6,101	9,384	7,366	28,246	75,820
Information Technology	10,727	7,376	7,035	4,175	4,048	941	429	2,358	11,304	41,358
TOTAL	1,056,285	230,876	119,778	181,897	386,642	340,015	370,260	335,690	776,075	3,677,740

FY 2017-18 Funds to be reappropriated

Appendices

WATER SUPPLY CAPITAL PROJECTS

Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

Project Name Here

RAW SCORE = 0

PRIMARY OBJECTIVE (75%)

Water Supply (E 2) 0

	I	P	
A1	☐	☐	Project maintains existing water utility infrastructure or is required to meet the current and future water supply demand, comply with water quality standards or meet other regulatory requirements. **I = Impact (H, M, L); P = Probability (H, M, L)**
A2	☐	☐	Project expands water utility infrastructure or provides additional water supply to meet current or near future demand. **I = Impact (H, M, L); P = Probability (H, M, L)**
B	☐		Project increases water supply portfolio, increases operation flexibility, improves maintenance capabilities, adds efficiency, or improves post-disaster reliability of water utility infrastructure [Example: improving the systematic reliability of water utility infrastructure to continually perform during and after a devastating event; improving the systematic flexibility of water utility infrastructure to utilize various source water; or adding redundancy so infrastructure can be taken off-line for maintenance]. **(H, M, L)**
C	☐		Timing of when project is needed to meet water supply demands, water quality standards, or other regulations. **(I = Immediately (0-3 yrs.); S = Short-term (3-5 yrs.); L = Long-term (5+ yrs.))**

COMMUNITY ENGAGEMENT (7.5%)

Social Factor - Check if applicable 0

- ☐ Promotes Emergency Recovery
- ☐ Addresses projected water supply demand indentified by Cities/County

Positive Interaction (E 4) - Check all that apply

- ☐ With the Community
- ☐ With other agencies

ENVIRONMENTAL SUSTAINABILITY (7.5%)

Water Quality (E 3.2) - Check if applicable 0

- ☐ Promotes drinking water quality
- ☐ Protects Ground Water
- ☐ Protects Surface Water
- ☐ Addresses Storm Water issues

Natural Resources Sustainability (E 3.2) - Check all that apply

- ☐ Promotes water use efficiency
- ☐ Reduces reliance on imported water
- ☐ Promotes stream management
- ☐ Encourages Water Conservation
- ☐ Protects Upland or Wetland Habitat
- ☐ Expands or Improves Fish Habitat
- ☐ Includes Climate Change Elements
- ☐ Promotes energy efficiency or incorporates energy efficient features

COST RECOVERY (10%)

Lifecycle costs are minimized - Check One 0

- ☐ Annual cost savings of more than $500,000
- ☐ Annual cost savings of $200,000 to $500,000
- ☐ Annual cost savings of less than $200,000 (reference ½ PY)

Funding Available from Other Agencies - Check One

- ☐ Over 50% of project costs available from other agencies
- ☐ 26% to 50% of project costs available from other agencies
- ☐ Up to 25% of project costs available from other agencies

FLOOD PROTECTION PROJECTS

Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

Project Name Here

RAW SCORE = 0

PRIMARY OBJECTIVE (60%)

Flood Protection (E 3) — 0

I P

☐ ☐ Project restores existing watershed infrastructure to its intended level of flood protection.
I = Impact on home, school, or business parcels (H = 1000+, M = 200 to 1000 , L = <200);
P = Probability based on frequency of flooding (H = every 10 yrs, M = every 25 yrs, L = every 50+ yrs)

☐ Project is a Board or USACE priority, improves watershed infrastructure to achieve the committed level of flood protection, or provides flood protection beyond the level of commitment. **(H, M, L)**

☐ Timing of when the flood protection benefit will be realized by the community.
I = Immediate (0-3 years); S = Short-term (3-5 years); L - Long-term (more than 5 years)

COMMUNITY ENGAGEMENT (10%)

Positive Interaction (E 4) - Check all that apply — 0

☐ With the Community
☐ Environmental Justice
☐ With other agencies

Good Neighbor (E 4) - Check all that apply

☐ Graffiti removal or Prevention Features
☐ Trash removal features (vortex weirs)
☐ Improves aesthetics of project location

ENVIRONMENTAL SUSTAINABLITY (15%)

Ecological Function (E 3.1, 4.1) — 0

☐ Project incorporates at least one of the following: removal of fish barrier; structural improvements to fish habitat; inclusion of riparian habitat (planting, setback or protect in place); inclusion of SRA plantings and/or features designed to improve water temperature; improvements to facilitate habitat connectivity, upland habitat and/or wetland habitat protection or preservation; or reduction of hardscape elements.

Physical Function (E 3.2)

☐ Project incorporates at least one of the following: a holistic watershed approach; energy efficiency; geomorphic design elements; erosion control (sediment source reduction); floodplain connectivity; or protection from sea level rise.

Water Quality and Supply (E 3.2)

☐ Project incorporates TMDL improvements or provides opportunity for recharge

Trails & Open Space (E4.2, E4.3) - Check all that apply

☐ Project incorporates trail friendly features, provides protection or preservation of open space, or provides/improves Bicycle Commute Route

COST RECOVERY (15%)

Funding Available from Other Agencies - Put an "X" in the % column based on the percenatage eligible for cost sharing; Put an "H", "M", or "L" in the C column based on the level of confidence — 0

% C

☐ ☐ 50% or more of project costs available from other agencies
% = Percentage of cost provided; C = Confidence Level (H, M, L)

☐ ☐ 26% to 49% of project costs available from other agencies
% = Percentage of cost provided; C = Confidence Level (H, M, L)

☐ ☐ Up to 25% of project costs available from other agencies
% = Percentage of cost provided; C = Confidence Level (H, M, L)

WATER RESOURCES STEWARDSHIP PROJECTS

Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

Project Name

RAW SCORE = 0

PRIMARY OBJECTIVE (55%)

Stewardship Projects 0

A ☐ Project creates Stewardship features to achieve stewardship commitments. **(H, M, L)**

B ☐ Stewardship activities beyond the current commitment. **(H, M, L)**

COMMUNITY ENGAGEMENT (15%)

Positive Interaction (E 4) - Check all that apply 0

☐ With the Community

☐ Environmental Justice

☐ With other agencies

Good Neighbor (E 4) - Check all that apply

☐ Graffiti removal or Prevention Features

☐ Trash removal features (vortex weirs)

☐ Improves aesthetics of project location

☐ Promotes water conservation

Education Element

☐ Promotes stream stewardship

☐ Promotes flood protection

☐ Promotes Bay protection

ENVIRONMENTAL SUSTAINABLITY (15%)

Ecological Function (E 3.2) - Check all that apply 0

☐ Fish Barrier Removal / Structural or nonstructural improvement to fish habitat

☐ Riparian Habitat (planting, setback or protect in place)

☐ SRA Plantings or Improved water temperature

☐ Upland Habitat Protection/Preservation

☐ Wetland Habitat Protection/Preservation

☐ Hardscape Reduction

Physical Stream Function (E 3.2) - Check all that apply

☐ Holistic Watershed Approach

☐ Geomorphologic Design Elements

☐ Erosion Control or Sediment Source Reduction

Water Quality (E 3.2) - Check all that apply

☐ Storm Water Treatment (pervious pavement, green roofs, etc.)

☐ TMDL Improvements

☐ Hazardous Material Removal (Asbestos, Lead, Hydrocarbons, etc.)

Trails & Open Space (E3.3) - Check all that apply

☐ Trail friendly features

☐ Provides/Improves Bicycle Commute Route

☐ Open Space Protection / Preservation

☐ Climate change elements

COST RECOVERY (15%)

Funding Available from Other Agencies - Check One 0

% C

☐ ☐ Over 50% of project costs available from other agencies

% = Percentage of cost provided; C = Confidence Level (H, M, L)

☐ ☐ 26% to 50% of project costs available from other agencies

% = Percentage of cost provided; C = Confidence Level (H, M, L)

☐ ☐ Up to 25% of project costs available from other agencies

% = Percentage of cost provided; C = Confidence Level (H, M, L)

BUILDINGS & GROUNDS PROJECTS

Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

Project Name

RAW SCORE = 0

PRIMARY OBJECTIVE (60%)

Buildings and Grounds (EL 3.4) 0

	I	P	
A	☐	☐	Project maintains or replaces existing building infrastructure to provide continuous housing of existing functions and/or to comply with employer safety standards. **I = Impact (H, M, L); P = Probability (H, M, L)**
B	☐		Project enhances building infrastructure to address treatment of staff issues.
C	☐		Project positions the District to meet projected future space needs.

COMMUNITY ENGAGEMENT (10%)

Positive Interaction (E 4) - Check all that apply 0

- ☐ With the Community
- ☐ With other agencies

Good Neighbor (E 4) - Check all that apply

- ☐ Graffiti removal or Prevention Features
- ☐ Trash removal features (vortex weirs)
- ☐ Improves esthetics of project location

ENVIRONMENTAL SUSTAINABILITY (15%)

Natural Resources Sustainability (E 3.2) - Check all that apply 0

- ☐ Air Quality & Visibility Improvement
- ☐ Energy Efficient Features (Lighting, HVAC, maximize daylight use, etc.)
- ☐ Renewable Energy Use
- ☐ Water Efficient Features: Plumbing fixtures, Landscaping, etc.
- ☐ Recycled Water, rain water or gray water utilized
- ☐ Construction Site Waste Management
- ☐ Recycle/Re-use Solid Waste
- ☐ Reduce Solid Waste Production
- ☐ Use of Recycled or Alternative Building Materials

Trails & Open Space (E3.3) - Check all that apply

- ☐ Trail friendly features
- ☐ Provides/Improves Bicycle Commute Route
- ☐ Open Space Protection / Preservation

COST RECOVERY (15%)

Funding Available from Other Agencies (Grants & Cost-share) - Check One 0

- ☐ Over 50% of project costs available from other agencies
- ☐ 26% to 50% of project costs available from other agencies
- ☐ Up to 25% of project costs available from other agencies

INFORMATION TECHNOLOGY PROJECTS

Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

Project Name

SCORE = 0

PRIMARY OBJECTIVE (75%)	**Information Technology (EL 7.5)**	0
	A ☐ I ☐ P ☐ Project maintains existing mission critical software systems and/or Information Technology infrastructure to improve reliability for business continuity; protection of intellectual property information and files from loss or damage. **I = Impact (H, M, L); P = Probability (H, M, L)**	
	B ☐ Project enhances mission critical software systems and/or IT infrastructure to improve user functionality. **(H, M, L)**	
	C ☐ Project enhances mission critical software systems and/or IT infrastructure to meet projected future needs. **(H, M, L)**	
	D ☐ Ties into IT Master Plan finding and/or recommendations (10 pts.)	
COMMUNITY ENGAGEMENT (15%)	**Good Neighbor** - Check all that apply	0
	☐ Program promotes the distribution of information to the community (public transparency)	
	☐ Program provides an opportunity for community interaction with the District.	
COST RECOVERY (10%)	**Funding Available from Other Agencies** - Check One	0
	☐ Over 50% of project costs available from other agencies	
	☐ 26% to 50% of project costs available from other agencies	
	☐ Up to 25% of project costs available from other agencies	

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Appendix B - Project List By Priority

Water Supply Capital Projects in Order of Priority

FUNDED

FY19 Priority	Name	Total Project Value ($K)	Remaining Cost ($K) (FY-19 to Completion)	Phase
100	Anderson Dam Seismic Retrofit	$550,893	$511,375	Plng/Des
92	Dam Seismic Stability Evaluation	$29,397	$10,618	Plng
92	Calero and Guadalupe Dams Seismic Retrofits	$171,778	$145,576	Plng/Des
91	RWTP Reliability Improvement	$289,232	$125,043	Construction
84	RWTP Residuals Remediation	$64,688	$28,924	Construction
84	RWTP Treated Water Valves Upgrade	$8,812	$219	Construction
78	10-Year Pipeline Rehabilitation	$125,469	$98,299	Plng/Des
76	Small Capital Improvements, San Felipe Reach 1-3	$45,811	$43,354	Continuing
76	Westside Retailer Interties	$2,004	$1,924	Plng
75	Pacheco/Santa Clara Conduit Right of Way Acquisition	$4,794	$1,899	Des
74	PWTP Residuals Management	$10,571	$10,571	Plng
74	SCADA Remote Architecture & Communications Upgrade	$7,591	$6,991	Plng
73	Small Capital Improvements, Raw Water Transmission	$4,572	$4,251	Continuing
73	Small Capital Improvements, Water Treatment	$42,561	$40,049	Continuing
73	Small Capital Improvements, Treated Water Transmission	$152	$152	Continuing
73	FAHCE Implementation	$145,108	$145,108	Plng
71	Expedited Purified Water Program	$213,465	$194,236	Plng/Des
71	Long-Term Purified Water Program Elements	$110,265	$110,265	FY23
70	Coyote Pumping Plant ASD Replacement	$16,985	$16,885	Plng
70	Main & Madrone Pipelines Restoration	$17,703	$292	Des
67	Vasona Pumping Plant Upgrade	$21,218	$20,867	Plng
62	IRP2 Additional Line Valves	$11,589	$11,589	Plng
62	Treated Water Isolation Valves	$8,215	$8,215	Plng
52	Pacheco Reservoir Feasibility Study	$15,059	$12,809	Plng
52	South County Recycled Water Pipeline	$56,834	$30,656	Des/Const
50	Almaden Dam Improvements	$62,208	$49,414	Plng/Des
48	Coyote Warehouse	$7,647	$1,726	Des/Const
LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS				
72	Dam Seismic Retrofit at 2 Dams (Chesbro & Uvas)	$89,500	$89,500	$0
62	SCADA Small Capital Improvements	$19,612	$19,612	$0
52	Pacheco Reservoir Expansion Project - Design/Const.	$1,179,018	$1,179,018	$0
32	South County Recycled Water Reservoir Expansion	$7,000	$7,000	$0
28	Alamitos Diversion Dam Improvements	$3,183	$2,345	$0
28	Coyote Diversion Dam Improvements	$2,461	$2,138	$0
25	Land Rights - South County Recycled Water PL	$5,816	$5,816	$0

Appendix B - Project List By Priority

Flood Protection Capital Projects in Order of Priority

FUNDED

FY19 Priority	Name	Total Project Value ($K)	Remaining Cost ($K) (FY-19 to Completion)	Phase
98	Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	$101,277	$1,717	Construction
83	Cunningham Flood Detention Certification	$11,687	$1,559	Construction
78	San Francisquito Creek, SF Bay thru Searsville Dam (E5)	$66,363	$13,954	Des/Const
76	Berryessa Creek, Calaveras Boulevard to Interstate 680	$48,249	$6,188	Design
74	San Francisco Bay Shoreline (E7)	$42,435	$14,231	Des/Const
74	Watersheds Asset Rehabilitation Program	$180,552	$165,990	Plng/Des/Const
70	Llagas Creek–Upper, Buena Vista Avenue to Llagas Road	$172,845	$84,345	Construction
68	Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd	$197,708	$91,981	Des/Const
68	Guadalupe River–Upper, I-280 to Blossom Hill Road (E8)	$165,972	$56,898	Des/Const
66	Upper Penitencia Creek, Coyote Creek to Dorel Drive	$61,445	$47,772	Plng/Des
65	Llagas Creek–Lower, Capacity Restoration, Buena Vista Road to Pajaro River	$13,879	$10,503	Design
65	Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	$26,953	$18,715	Des/Const
65	Sunnyvale East and West Channels	$70,143	$51,520	Construction
62	Permanente Creek, SF Bay to Foothill Expressway	$96,303	$5,281	Construction
62	Coyote Creek, Montague Expressway to Tully Road	$45,012	$33,269	Plng
56	Palo Alto Flood Basin Tide Gate Structure Improvements	$12,426	$11,531	Construction
LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS				
74	SF Bay Shoreline EIA 11 (Construction)	$35,000	$35,000	N/A

Appendix B - Project List By Priority

Water Resources Stewardship Capital Projects in Order of Priority

FUNDED

FY19 Priority	Name	Total Project Value ($K)	Remaining Cost ($K) (FY-19 to Completion)	Phase
	Mitigation (All Mitigation projects are required per CEQA or other Regulation and therefore do not receive a score)			
	SMP Mitigation, Stream and Watershed Land Preservation	$16,734	$0	Continuing
	Environmental Enhancement & Stewardship			
	Lower Peninsula Watershed			
77	Hale Creek Enhancement Pilot Study	$4,831	$2,603	Const/Close
72	Stevens Creek Fish Passage Enhancement	$21,134	$20,284	Plng
	Guadalupe Watershed			
85	Almaden Lake Improvements	$32,799	$29,445	Des
	Coyote Watershed			
78	Watershed Habitat Enhancement Design & Construction	$65,498	$65,498	Des
	Multiple Watersheds			
80	SCW Fish Passage Improvements	$4,280	$1,325	Des/Const
75	SCW Implementation Fund	$20,824	$20,824	Plng
50	Salt Ponds A5-11 Restoration	$13,237	$8,470	Plng/Des
	Feasibility Studies			
N/A	Watershed Habitat Enhancement Studies	$2,273	$1,082	Feasibility

Appendix B - Project List By Priority

Buildings and Grounds Capital Projects in Order of Priority

FUNDED

FY19 Priority	Name	Total Project Value ($K)	Remaining Cost ($K) (FY-19 to Completion)	Phase
73	Almaden and Winfield Campus, Small Capital Improvements	$41,367	$39,367	Continuing
65	Headquarters Operations Building	$18,149	$18,129	Plng/Des

LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS

70	Fleet and Facility Annex Improvements	$4,719	$4,719	N/A

Information Technology Capital Projects in Order of Priority

FUNDED

FY19 Priority	Name	Total Project Value ($K)	Remaining Cost ($K) (FY-19 to Completion)	Phase
63	PeopleSoft System Upgrade & Expansion	$18,896	$12,896	Construction
63	Vena Software Implementation	$1,157	$0	Construction
54	Software Upgrades & Enhancements	$18,268	$16,693	Construction
46	IT Disaster Recovery	$1,955	$0	Construction
46	WTP-WQL Network Equipment	$12,785	$10,597	Construction
34	Data Consolidation	$1,023	$261	Construction

LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS

None

Appendix C - District Partnership Summary

Partnership Reimbursements are funds that are reimbursed by the District's partners after the District advances the needed funds. The following table identifies capital projects that are funded cooperatively with the District's partners through reimbursements.

Partnership Reimbursement

FY 2019-33 Planned Capital Reimbursement Schedule

Reimbursements for Current Projects ($K)			Actuals	Planned							
Project Number	Project Name	Agency	Thru FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	Total
91234002	Coyote Pumping Plant ASD Replacement	Total	0	22	250	180	714	1,411	987	174	3,738
		San Benito Water Dist	0	22	250	180	714	1,411	987	174	3,738
91214010	Small Capital Improvements, San Felipe - Rch 1	Total	1,328	530	638	425	439	20	0	3,828	7,208
		San Benito Water Dist	1,328	530	638	425	439	20	0	3,828	7,208
92144001	Pacheco/Santa Clara Conduit ROW Acquisition	Total	19	331	333	85	0	0	0	0	768
		San Benito Water Dist	19	331	333	85				0	768
92374005	SCADA Remote Architecture & Comm. Upg	Total	0	78	134	67	69	226	236	805	1,615
		San Benito Water Dist	0	78	134	67	69	226	236	805	1,615
91094007s	South County Recycled Water Pipeline	Total	2,106	0	0	2,000	2,000	0	0	0	6,106
		SCRWA	811							0	811
		USBR - ARRA	1,295							0	1,295
		USBR - Title 16	0			2,000	2,000			0	4,000
26154001s	Guadalupe River–Upper, I-280 - Blossom Hill Rd.	Total	18,176	500	0	11,623	4,522	2,422	2,422	0	39,665
		State Subventions	13,585	500		11,623	4,522	2,422	2,422	0	35,074
		City of San Jose	4,591							0	4,591
26174041s	Berryessa Ck, Calaveras Bvd to I-680	Total	0	7,000	3,826	3,558	0	0	0	0	14,384
		State Subventions	0		826	3,558				0	4,384
		DWR - Prop 1E	0	7,000	3,000					0	10,000
40174004	Berryessa Ck, Lwr Penitencia Ck - Calaveras Blvd.	Total	3,414	10,000	1,600	0	0	0	0	0	15,014
		DWR - Prop 1E	3,414	10,000	1,600					0	15,014
40264011	Cunningham Flood Detention Certification	Total	0	0	5,300	0	0	0	0	0	5,300
		DWR - Prop 1E	0		1,000					0	1,000
		NRCS	0		4,300					0	4,300
40334005	Lwr Penitencia Ck Imp, Berryessa to Coyote Cks.	Total	0	0	1,000	4,000	0	0	0	0	5,000
		DWR - Prop 1E	0		1,000	4,000				0	5,000
40264008s	Lwr Silver Ck, I-680 to Cunningham, Rchs 4-6	Total	26,940	22,285	3,000	0	865	0	0	0	53,090
		State Subventions	6,733	1,285			865			0	8,883
		DWR - Prop 1E	0	21,000	3,000					0	24,000
		NRCS-ARRA	20,676							0	20,676
50284010	Llagas Ck–Lwr, Capacity Restoration	Total	120	0	0	0	1,000	0	0	0	1,120
		State Subventions	120	0			1,000			0	1,120
26174051s	Llagas Creek–Upr, Buena Vista to Wright	Total	9,430	5,000	5,300	5,000	9,180	6,331	0	0	40,241
		State Subventions	6,089	5,000	5,300	5,000	9,180	6,331		0	36,900
		City of Morgan Hill	3,341							0	3,341
26244001	Permanente Creek, SF Bay to Foothill Expway	Total	0	1,023	0	0	0	0	0	0	1,023
		City of Mountain View	0	1,023						0	1,023
10284007s	San Francisquito Creek, SF Bay - Searsville Dam	Total	0	1,653	1,433	1,434	0	0	0	0	4,520
		JPA (Joint Powers Authority) Member Agencies	0	1,653	1,433	1,434				0	4,520
		SUBTOTAL - Reimbursements from Current Projects	61,907	48,422	22,814	28,372	18,789	10,410	3,645	4,807	198,792

Partnership Reimbursement (cont'd)

Pending Reimbursements for Closed Projects			Actuals								
Project Number	Project Name	Agency	Thru FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	Total
91214001	Pacheco Conduit Inspection & Rehabilitation	Total	374	1,281	0	0	0	0	0	0	1,655
		San Benito Water Dist	374	1,281	0					0	1,655
91244001	Wolfe Road Recycled Water Pipeline	Total	11,235	0	0	0	0	0	0	0	11,235
		Apple Computer	4,800							0	4,800
		Cal Water	1,500							0	1,500
		City of Sunnyvale	2,101							0	2,101
		DWR - Prop 84	2,834							0	2,834
94384002	Penitencia Delivery Main Seismic Retrofit	Total	3,864	578	0	0	0	0	0	0	4,442
		Department of Water Resources (A3904)	3,864	578						0	4,442
92224001	Penitencia Force Main Seismic Retrofit	Total	4,900	1,173	0	0	0	0	0	0	6,073
		Department of Water Resources (A3904)	4,900	1,173						0	6,073
91184008	Silicon Valley Advanced Water Purification Ctr	Total	22,046	123	0	0	0	0	0	0	22,169
		City of San Jose	8,500							0	8,500
		DWR - Prop 50	2,935							0	2,935
		DWR - Prop 84	2,486	123						0	2,609
		USBR - ARRA	8,125							0	8,125
30154013s	Guadalupe River–DT, I-880 to I-280	Total	39,480	0	110	0	0	0	0	0	39,590
		State Subventions	27,618		110					0	27,728
		City of San Jose	1,654							0	1,654
		San Jose Redev Agency	10,208							0	10,208
		SUBTOTAL - Reimbursements for Closed Projects	81,899	3,155	110	0	0	0	0	0	85,164
		TOTAL REIMBURSEMENTS	143,806	51,577	22,924	28,372	18,789	10,410	3,645	4,807	283,956

Appendix C - District Partnership Summary

Partnership Funding is funds that are made available by the District's partners, when needed. The following table identifies capital projects that receive partnership funding. This may occur through either cost sharing agreements or as in-kind services.

Partnership Funding

Project Number	Project Name	Amount ($K)	Partnering Agency
26174041s	Berryessa Creek, Calaveras Boulevard to Interstate 680	13,600	U.S. Army Corps of Engineers
26154001s	Guadalupe River–Upper, Interstate 280 to Blossom Hill Road	188,000	U.S. Army Corps of Engineers
26174051s	Llagas Creek–Upper, Buena Vista Road to Wright Avenue	65,000	U.S. Army Corps of Engineers
00044026s	San Francisco Bay Shoreline	91,250	USACE, Coastal Conservancy, US Fish & Wildlife, CA Wildlife Conservation, Packard-Hewlett-Goldman-Moore Foundations
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam	3,000	U.S. Army Corps of Engineers
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam	8,000	San Francisquito Joint Powers Authority (DWR)
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam	1,500	County of San Mateo
40324003s	Upper Penitencia Creek, Coyote Creek to Dorel Drive	102,720	U.S. Army Corps of Engineers
	TOTAL	$ 473,070	

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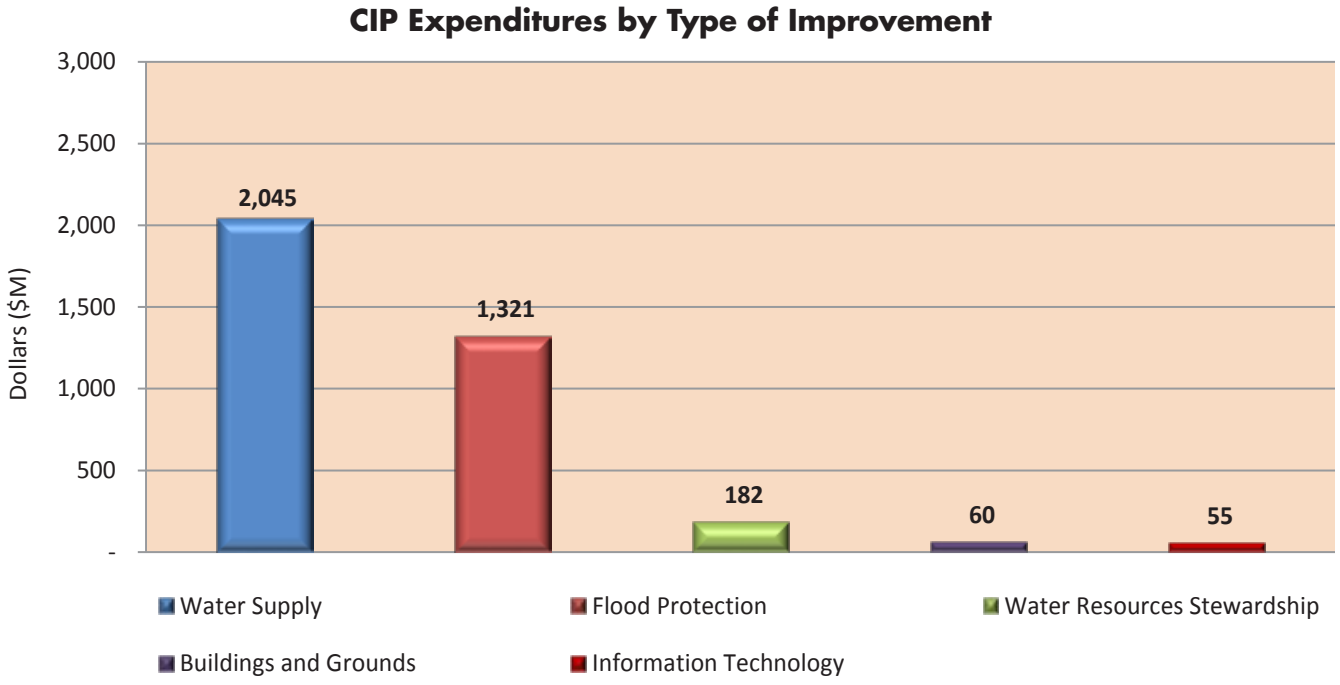
Appendix D - Summary of Capital Expenditures

Expenditure Schedule by Type of Improvement ($K)

	THRU FY17 (Actuals)	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29-33	TOTAL
Water Supply	277,363	135,951	126,456	267,463	240,316	281,113	279,042	195,398	62,504	137,882	11,923	4,989	24,221	2,044,621
Flood Protection	574,387	130,833	123,231	111,681	71,189	55,050	34,079	29,868	48,537	33,203	33,412	11,514	63,752	1,320,736
Water Resources Stewardship	23,757	8,322	6,756	13,725	22,068	24,266	11,257	21,034	30,144	16,084	789	3,408	-	181,610
Buildings and Grounds	20	2,000	2,072	4,327	6,101	9,384	7,366	2,455	2,530	2,608	2,688	2,771	15,194	59,516
Information Technology	6,598	7,858	11,306	4,240	941	530	3,946	4,685	1,400	946	735	6,268	5,450	54,903
TOTAL	882,125	284,964	269,821	401,436	340,615	370,343	335,690	253,440	145,115	190,723	49,547	28,950	108,617	3,661,386

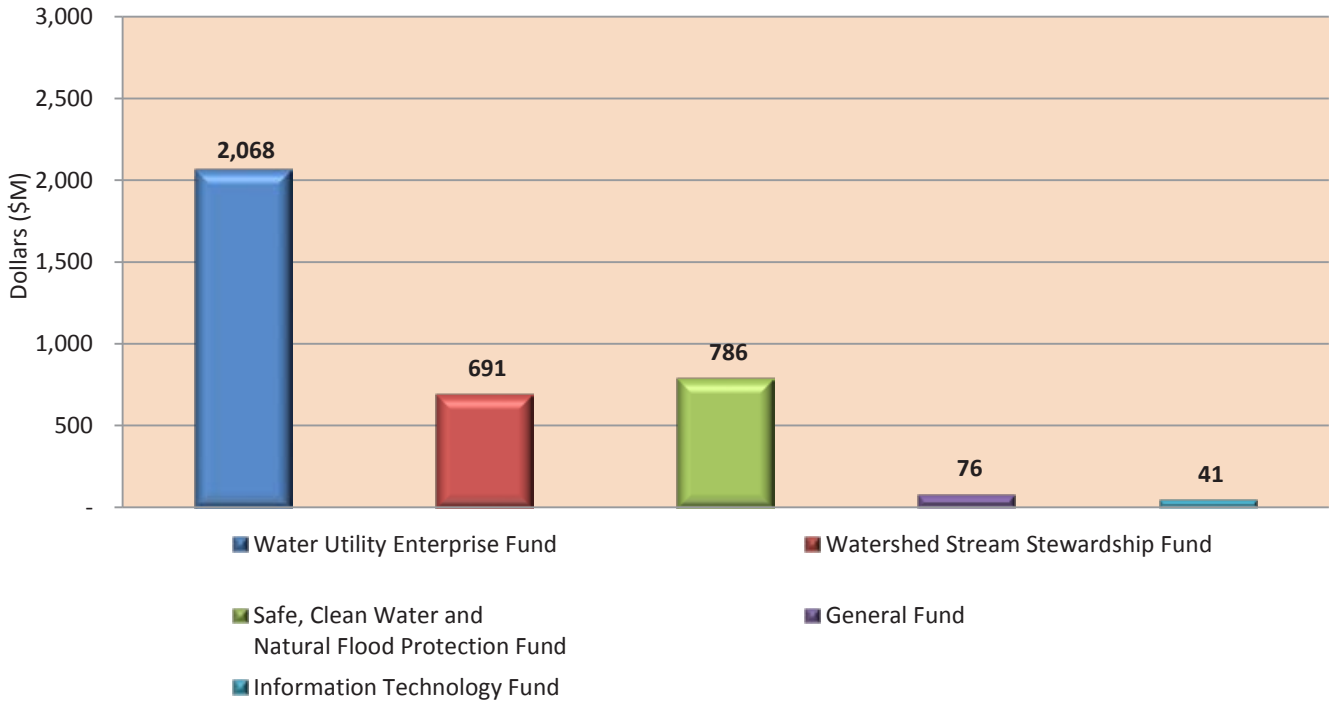


Appendix D - Summary of Capital Expenditures

Expenditure Schedule by Fund ($K)

	THRU FY17 (Actuals)	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29-33	TOTAL
Water Utility Enterprise Fund	276,201	120,405	112,801	266,982	234,496	287,927	284,368	212,861	81,835	144,760	12,078	6,592	26,208	2,067,513
Watershed Stream Stewardship Fund	289,277	37,325	44,844	44,667	29,798	22,245	18,102	16,905	40,244	38,947	33,412	11,514	63,752	691,032
Safe, Clean Water and Natural Flood Protection Fund	310,896	116,447	86,525	81,412	69,280	50,358	23,496	19,732	20,016	3,789	789	3,408	-	786,148
General Fund	1,219	4,250	14,881	4,327	6,101	9,384	7,366	2,455	2,530	2,608	2,688	2,771	15,194	75,774
Information Technology	4,532	6,537	10,770	4,048	941	429	2,358	1,487	490	619	580	4,665	3,463	40,919
TOTAL	882,125	284,964	269,821	401,436	340,615	370,343	335,690	253,440	145,115	190,723	49,547	28,950	108,617	3,661,386

CIP Expenditures by Fund



Appendix E - Safe Clean Water Project Schedules

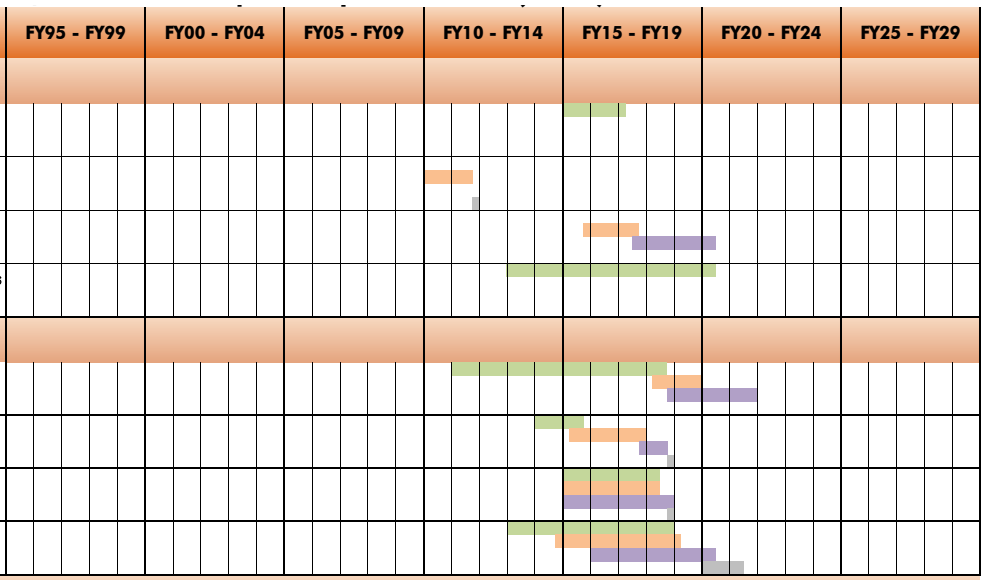
The following tabel is an overview schedule for water supply capital projects identified in the FY 2019-23 CIP. Detailed information for each project can be found in this document in their respective chapters in the order presented in this table.

Safe, Clean Water Capital Improvement Project Schedules

Project Number	PROJECT NAME	FY95 - FY99	FY00 - FY04	FY05 - FY09	FY10 - FY14	FY15 - FY19	FY20 - FY24	FY25 - FY29
	WATER SUPPLY							
26C40349	IRP2 Additional Line Valves (A3)							
26564001	Main & Madrone Pipelines Restoration (A1)							
	FLOOD PROTECTION							
10244001	Permanente Creek, SF Bay to Foothill Expressway							
26244001	Permanente Creek, SF Bay to Foothill Expressway							
10284007	San Francisquito Creek, SF Bay thru Searsville Dam							
10284008	San Francisquito Creek, Early Implementation							
26284001	San Francisquito Creek, SF Bay thru Searsville Dam (E5)							
26284002	San Francisquito Creek - Construction, SF Bay to Middlefield Road (E5)							
26074002	Sunnyvale East and West Channels							
26154001	Guadalupe Rv–Upper, Fish Passage Mods							
26154002	Guadalupe Rv–Upper, I-280 to SPRR (R6)							
26154003	Guadalupe Rv–Upper, SPRR-Blossom Hill (R7-12)							
26154004	Guadalupe Rv–Upper, Actuals chg to other proj numbers							
26174041	Berryessa Ck, Calaveras-I-680 - Corps							
26174042	Berryessa Ck, Calaveras-I-680 - Reimbursable							
26174043	Coyote Creek, Montague Expressway to Interstate 280							
40324003	Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps							
40324005	Upper Penitencia Ck, Coyote Ck-Dorel Dr, LERRDs							
26324001	Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps (E4)							
26174051	Llagas Creek–Upper, Reimbursable (E6b)							
26174052	Llagas Creek–Upper, Corps Coordination (E6a)							
26174053	Llagas Creek–Upper, Technical Studies							
26174054	Llagas Creek–Upper, Design							
50C40335	Llagas Creek–Upper, R5,6,&7b							

Safe, Clean Water Capital Improvement Project Schedules (cont'd)

Project Number	PROJECT NAME	FY95 - FY99	FY00 - FY04	FY05 - FY09	FY10 - FY14	FY15 - FY19	FY20 - FY24	FY25 - FY29
	FLOOD PROTECTION (cont'd)							
00044026	San Francisco Bay Shoreline							
62044042	Shoreline Early Implementation							
26444001	San Francisco Bay Shoreline - EIA 11 Design & Partial Construction (E7)							
26444002	San Francisco Bay Shoreline - Other EIAs Planning (E7)							
	WATER RESOURCES STEWARDSHIP							
26044001	Almaden Lake Improvements (D4.1a)							
26164001	Hale Creek Enhancement Pilot Study (D6)							
26044002	SCW Fish Passage Improvements (D4.3; Bolsa Road)							
26444003	South Bay Salt Ponds Restoration (D8)							



Legend

- Planning Phase
- Design Phase
- Construction Phase
- Close-out Phase

Appendix F - Glossary

Ad Valorem Tax
A tax based on value (e.g., a property tax).

Appropriation
An appropriation is a legal authorization granted by the Santa Clara County Board of Supervisors which allows the District to expend cash and incur obligations for specific purposes. An appropriation is usually limited in amount and the time it may be expended.

Assessment
The process of setting the official valuation of property for taxation; the valuation placed upon property as a result of this process.

Asset
A probable future economic benefit obtained or controlled by a particular entity as a result of past transactions or events. Examples of assets are cash, receivables, and equipment.

Benefit Assessment
Determination of the benefits derived from District activities within particular watersheds and levying a proportionate share of taxes to each parcel subject to voter-approved limitations.

Bonds
Bonds are a long-term source of debt that provides a source of borrowed monies that can be used to pay for specific capital facilities. Bonds are a written promise to pay a specified sum of money at a predetermined date or dates in the future, called the maturity date(s), together with periodic interest at a specific rate.

Capital Expenditure
Capital expenditures fall into several categories. In general, they should create assets or extend the useful lives of existing assets. The work product results in a long-term benefit greater than two years and for budgeting purposes involved a major expenditure of district resources greater than $50,000. They can be made with regard to tangible and intangible assets. The general categories of capital expenditures are: rehabilitation, major repairs, improvements/ betterments/ upgrades, replacements, expansions/ additions, and ancillary expenditures.

Capital Projects
Projects are budgeted within the Capital budget and fall within the definition of Capital Expenditures; which means they (1) create or extend the life of an asset, (2) their work products have a useful life of greater than two years, and (3) they involve an expenditure of District resources in excess of $50,000.

Certificates of Participation (COPs)
A security in the general form of a bond, which evidences a proportionate participation in a flow of lease or other payments between two parties.

CEQA
California Environmental Quality Act

CIP
Capital Improvement Program

Cost Center
Cost Centers are separate financial accounting centers in which costs are accumulated because of legal and accounting requirements, the first two digits of a project number identifies the cost center.

DPR
Direct Potable Reuse

DWR
State Department of Water Resources

EIR
Environmental Impact Report

Encumbrances
Commitments related to unperformed (executory) contracts for goods or services. Encumbrances represent the estimated amount of expenditures that will result if unperformed contracts in process are completed.

Appendix F - Glossary

Enterprise Fund
Enterprise Funds are used to account for operations including debt service (a) that are financed and operated in a manner similar to private business, where the intent of the government body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a accounting basis is financed or recovered primarily though user charges; or (b) where the governing body has determined that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control accountability, or other purposes.

ERP
Enterprise Resource Planning

Expenditure/Expense
Decreases in net financial resources. Expenditures include current operating expenses requiring the present or future of net current assets, debt service and capital outlays, and intergovernmental grants, entitlements, and shared revenues. The major expenditure categories used by the District are labor and overhead, land and structures, equipment, and debt service.

Facility
Defined as a creek, reservoir, dam, water treatment plant, pipeline, canal, etc.

Fixed Assets
Fixed Assets are defined as long-lived tangible assets such as automobiles, computers and software, furniture, communications equipment, hydrologic equipment, office equipment, and other equipment, with a value of $2,000 or more, or the combined value of like or related units (aggregate value) is greater than $5,000 if the unit value is less than $2,000.

Fiscal Year
A 12-month period to which the annual operating budget applies and at the end of which a government determines its financial position and the results of its operations. The District's fiscal year is July 1 through June 30.

Fund
A fiscal and accounting entity with a self-balancing set of accounts in which cash and other financial resources, all related liabilities and residual equities, or balances, and changes therein, are recorded and segregated to carry on specific activities or attain certain objectives in accordance with special regulations, restrictions or limitations.

General Fund
A fund used to account for major operating revenues and expenditures, except for those financial transactions that are required to be accounted for in another fund. General Fund revenues are derived primarily from property and other taxes.

Grants
Contributions or gifts of cash or other assets from another government entity to be used or expended for a specified purpose, activity, or facility.

HVAC
Heating, Ventilation, and Air Conditioning

IPR
Indirect Potable Reuse

JPA
Joint Power Authority

Levy
(1. Verb) To impose taxes, special assessments, or service charges for the support of government activities; (2. Noun) The total amount of taxes, special assessments, or service charges imposed by a government agency.

Long-Term Debt
Debt with a maturity date of more than one year after the date of issuance.

MGD
Million Gallons per Day

Appendix F - Glossary

One Percent Flood or 100 Year Flood

Has a 1% chance of occuring in a given year. Water District projects are usually designed for the 1% flood, a national standard established by the Federal Emergency Management Agency (FEMA).

Operating Expenditure

Operating expenditures are system costs required for the daily process of providing water and watershed management services, including the administrative and overhead costs to support these services.

Operating expenditures are costs necessary to maintain the systems in good operating condition. This includes the repair and replacement of minor property components. The American Waterworks Association (AWWA) says that these priority components should be smaller than a retirement unit; a retirement unit is a readily separable and separately useful item that is part of a larger assembly. The benefit and life of such repairs should be less than two years. Any repairs that recur on an annual basis are considered operating activities of a maintenance nature.

Operating expenditures are often separated into fixed and variable costs for purposes of understanding operating leverage and structuring service charge rates.

Operations

Expenditures required for the daily process of providing water and watershed management services, including the administrative and overhead costs to support these services. Operations include work that is generally of an ongoing or recurring nature. Any District work that is not a project is, by definition, an Operation. Operations, although recurring, require close coordination and a high degree of management oversight; however, they can be accomplished without the application of the full range of tools and processes used for managing projects.

P3

Public Private Partnership

Projects

At the Santa Clara Valley Water District, a project is any undertaking which has (1) a beginning and an ending, (2) a one-time occurrence. Projects can require expenditure of capital or operating funds and, at the District, are called Capital or Operating Projects, accordingly. Project usually, but no always, relate to a District facility or facilities (a creek, a reservoir, a dam, a water treatment plant, a pipeline,, etc.). Projects may include studies, design, construction, maintenance, or implementation of systems such as Records Management or Financial Management System.

Revenue

Monies the District receives in exchange for services or sales provided. Revenue items include water sales, property tax revenues, benefit assessment revenues, interest income, intergovernmental reimbursement, and other.

Revenue Bonds

Bonds, whose principal and interest are payable exclusively from earnings of an enterprise fund. In addition to a pledge of revenues, such bonds sometimes contain a mortgage on the enterprise fund's property.

Reserve

An account used to indicate that a portion of a fund's assets are legally restricted for a specific purpose and is, therefore, not available for general appropriation.

WTP

Water Treatment Plant

WQL

Water Quality Lab

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